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January 26, 2007 Volume 29 Number 4 www.processor.com



# Can CDP Save Your Data?

# Backup That's Always On, Active & Alert

by David Garrett

BACKUPS ARE NOT for the faint of heart. Tape is prone to get brittle and break; restores are known to fail when you need them most; and users rarely understand why you can't retrieve their Word and PowerPoint docs in a heartbeat.

Enter CDP, short for continuous data protection. It promises to give the IT manager a complete copy of his data at all points in time, recording every change like a running journal. Restores are quick and easy and accurate, whether they're from 10 minutes or 10 months ago. What's more, most CDP products have a set-it-and-forget-it approach, injecting a dose of convenience into an otherwise awkward process.

But knowing exactly what's behind the acronym can be hard. Ask 10 vendors to define CDP, and you could get 12 answers (or more), ranging from always-on, real-time protection to a cocktail of snapshots, replication, and plain old vanilla backups.

#### The Devil's In The Details

When it comes to nailing down CDP's details, the SNIA's (Storage Networking



Industry Association's) SIG (special interest group) for CDP is widely believed to be the vendor-neutral authority. According to the SIG, CDP is a way to "continuously capture or track data modifications and store

changes independent of the primary data, enabling recovery points from any point in the past." Indeed, the notion that you can restore to any point in time and not just a *Go to Page 12* 

# Outsourcing Email Security

# **Examining Managed Services For Your Messages**

by Kurt Marko

EMAIL IS A MANIFEST BOON to most businesses; however, it's been a mixed blessing for IT professionals. Whereas users are insulated from the hassles of running email infrastructure, the IT staff must cope with a raft of email-related problems, not the least of which are security threats and spam. Clearly, we are all inconvenienced by spam or suspicious message attachments, but that's just the tip of the iceberg compared to the troubles email administrators deal with. Predictions

of increased spam or email virus traffic are commonplace, but unlike the boy who cried wolf, these warnings are invariably true. According to statistics compiled by email security vendor Postini (www.postini.com), spam traffic grew by 147% last year (73% in the last quarter alone), and viruses were found in one out of every 200 messages.

While protecting users against these menaces was once a routine administrative task, the multiplicity and complexity of threats is beyond the capacity for individuals to thwart effectively. Thus, an entire industry has spawned, devoted to providing IT departments with comprehensive solutions—usually embodied as standalone hardware appliances—for defending email systems. Although these filtering appliances are simple to deploy and manage, for SMEs grappling with limited IT staff, any extra box means extra headaches. For them, outsourcing email security to one of the *Go to Page 13* 

Predictions of increased spam or email virus traffic are commonplace, but unlike the boy who cried wolf, these warnings are invariably true.

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Storage is, without a doubt, one of the biggest concerns in today's data centers, so it's essential to keep up-to-date with the newest approaches and technologies in use.

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■ Berkeley Varitronics Systems announced a new BumbleBee spectrum analyzer that includes a Tablet PC interface. ■ Cisco unveiled its Digital Signage platform designed to assist in the use of digital media on networked digital signage displays. 

Citrix launched the latest version of its GoToMyPC remote access software. ■ IBM introduced the System Storage DS3000 entry-level storage system. 

Microsoft. First Data, and HP collaborated on a new POS system for small retailers. ■ The VF2110 is Mistletoe's first security product for SMEs. ■ Nuts About Nets introduced its new AirSleuth 2.4GHz Spectrum Analyzer. ■ SpectraLink introduced its NetLink Softphone application, which extends the company's Wi-Fi telephony abilities to third-party mobile devices. ■ TROY added a new printer, the TROY MICR 3005, to its Secure Printing Solutions line.

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## Upcoming IT Events

#### - FEBRUARY -

Gartner Wireless & Mobile Summit

February 5-7

Dallas, Texas www.gartner.com/2\_events/conferences/ra10.jsp

> . . . . . **RSA Conference** February 5-9

San Francisco, Calif. www.rsaconference.com/2007/US

SCALE 5x - 2007 Southern California Linux Expo February 10-11

Los Angeles, Calif. www.socallinuxexpo.org

. . . . . Gartner Business Process Management Summit

February 26-28 San Diego, Calif. www.gartner.com/2\_events /conferences/bpm3.jsp

. . . . . Comptel Plus Spring 2007 Convention & Expo February 27-March 2

Las Vegas, Nev. www.comptel.org

#### - MARCH -

**DAMA International Symposium** March 4-8

Boston, Mass. www.wilshireconferences.com . . . . . VoiceCon

> March 5-8 Orlando, Fla. www.voicecon.com

Gartner Business Intelligence Summit

March 12-14 Chicago, III.

www.gartner.com/2\_events/conferences/bi5.jsp

. . . . . Boston SecureWorld Expo

March 14-15 Boston, Mass. www.secureworldexpo.com

. . . . . TelecomNEXT March 18-21

Las Vegas, Nev. www.telecom-next.com . . . . .

Gartner Outsourcing Summit March 19-21

Dallas, Texas www.gartner.com/2\_events/conferences/std10.jsp

. . . . . **FOSE** 

March 20-22 Washington, D.C. www.fose.com

. . . . . **Data Center World** March 26-27

Las Vegas, Nev. www.afcom.com

**RFID World** 

March 27-29 Dallas, Texas

www.shorecliffcommunications.com/rfid07

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# MarketPlace NEWS





#### Sun, Intel Reach Deal

SUN AND INTEL announced they have reached a partnership deal in which Sun will resume using Intel Xeon processors in its x86 servers and some workstations, and Intel will receive rights to sell Solaris. Sun stopped using Intel chips in 2005, replacing them with AMD chips that were faster and more efficient than Intel's at that time. Sun will continue to sell servers with its Sparc and AMD's Opteron processors. As part of the deal, Intel's CEO Paul Otellini endorsed Sun's Solaris OS, Java software, and NetBeans programming tools. The first Sun servers using Intel Xeon processors should arrive during the first half of this year.

#### IE 7 Reaches 100 Million Installs

ACCORDING TO A MICROSOFT Internet Explorer blog entry, IE 7 has reached a milestone: It has been installed 100 million times. The browser's predecessor, Internet Explorer 6, still leads in the United States as the most-used browser, but IE 7 now comes in second. IE 7's use will likely increase as Microsoft Vista, which has IE 7 built into it, rolls out to consumers this month. In addition, more users of Windows XP are expected to upgrade to the new browser through Microsoft's Automatic Updates. WebSideStory, which tracks browser usage, reports that of the total number of visitors to Web sites in the United States, 25% are using IE 7.

#### Google, Yahoo! Top U.S. Web Search Market

ACCORDING TO A RECENT SURVEY, Google and Yahoo! both increased their share of the U.S. Web search market during the month of December. The survey, conducted by comScore Networks, a Web audience measurement firm, shows Google's share of the market increased 0.4% to 47.4%, while Yahoo! saw a 0.3% increase for a 28.5% share. U.S. Web users conducted 6.7 billion searches during the month of December, which is a 1% increase over November's searches. According to com-Score, 3.2 billion of those December searches were done using Google, and 1.9 billion were done using Yahoo!.

#### IBM Profit Rises

IBM's PROFIT ROSE more than 11% during the past year, and its 2006 revenue was \$91.4 billion, up 4% from 2005. Much of the increase is credited to IBM's middleware group, which had a revenue increase of 18% over the past year. Revenues for the global technology services group rose 7%; the company signed deals worth \$17.8 billion last quarter, which is a 55% increase from the past year, according to Mark Loughridge, IBM's senior vice president and CFO. IBM's quarterly earnings amounted to \$2.26 a share, beating analyst predictions of \$2.19 a share.

#### Software Piracy Settlements Announced

ELEVEN CASES INVOLVING the piracy of software were settled last month for more than \$1 million by the SIIA (Software & Information Industry Association), a group that represents software vendors and digital information providers. Keith Kupferschmid, SIIA vice president of intellectual property policy and enforcement, says the

settlements reveal that many companies are lacking "adequate software compliance practices." Although the settlements sound "somewhat large," Kupferschmid says companies could have received much larger penalties if they had not cooperated with SIIA investigations.

#### ■ HP Gains Ground With PC Market Share

ACCORDING TO GARTNER GROUP, HP continues to widen the gap between it and rival Dell in the worldwide market share in PCs. During Q4 of last year, HP retained its No. 1 position with a 17.4% market share worldwide; Dell had a 13.9% market share. The top five were rounded out with Lenovo at 7.1%, Acer with 6.8%, and Toshiba with 3.8%. In the U.S. market, however, Dell is the leader with 29.1%, while HP has 25.3% market share, according to Gartner.

#### Intel Posts Lower Quarterly Profit

FOLLOWING THE CLOSE of its fourth quarter, Intel reported a net income of \$1.5 billion, 39% lower than the same quarter a year ago. However, this figure was up 15% over Intel's profits in the third quarter. Quarterly earnings totaled 26 cents per share, 18% higher than the previous quarter but 35% lower than last year. Revenue was \$9.7 billion, 11% higher than the third quarter but 5% lower than it was a year ago. Intel says its poor performance for the quarter stemmed from its off-mark product demand forecasts and inability to lower fixed costs, in addition to competitors releasing new products and new pricing pressures.

#### Apple Stock Grant Under Investigation

THE U.S. DEPARTMENT OF JUSTICE and Securities and Exchange Commission are investigating a backdated stock grant given to Apple CEO Steve Jobs. The stock option grant was documented as being approved by the board on Oct. 19, 2001. However, a board meeting never took place on that date. The backdating significantly increased the value of the options, and Apple has taken a charge related to the misdating. The company's board of directors has given Jobs a vote of confidence, and Apple's own investigation found that Jobs knew of the backdating but did not benefit financially from it.

#### HP Works To Extend Moore's Law

**HP** RESEARCHERS ARE DEVELOPING FPGAs (field programmable gate arrays) that are up to eight times denser than today's FPGAs while using less energy. The new advancements could be used to improve the efficiency of today's computer chips. The

design uses a nanoscale crossbar switch structure, layered on top of the CMOS in what's being called an FPNI (field programmable nanowire interconnect). The FPNI handles all signal routing in a much more efficient manner than is possible today. HP researchers have presented a "conservative" chip model that could be technologically viable by 2010.

#### California AG Offers HP Plea Deals

CONTINUING THE CASE against HP's Chairman Patricia Dunn and the four other HP employees involved in last year's spying scandal, the attorney general for California has offered the defendants the opportunity to avoid felony charges by pleading guilty to misdemeanors. The felony charges against the five include identity theft, fraudulent wire communications, wrongful use of computer data, and conspiracy to commit those crimes. The charges stem from the individuals using pretexting methods, which involve gathering personal information under false pretenses, in an internal probe into boardroom leaks to the media.

#### Siemens Launches Outsourcing Group

THE LAUNCH OF SIEMENS' new SIS (Siemens IT Solutions and Services) division has taken place three months after the company announced plans to bundle its worldwide IT services and software activities. The electronics and engineering company's new division includes SBS (Siemens Business Services), Program and System Engineering, Siemens Information Systems, Development Innovation and Projects, and Business Innovation Center. Combining the departments will allow Siemens to offer more comprehensive systems and services. The new division will employ about 43,000 people and will be overseen by Christoph Kollatz, who will serve as group president of SIS.

#### Class Action Lawsuit Filed Against Dell

THAD GRIFFIN FROM ONTARIO, Canada, has filed a suit against Dell, claiming that even though the company knew certain Dell Inspiron notebooks contained problems, it continued to sell them. The suit concerns Inspiron models 1100, 1150, 5100, 5150, and 5160 and says these laptops are prone to premature failure because of wear and tear on the motherboard caused by flaws in the design that lead to overheating. The lawsuit calls for Dell Canada to either pay for repairs or replace the faulty computers. Dell received negative publicity for a massive battery recall last year, but this suit is not directly related to that.

This information provides a quick glimpse of current and historical stock prices and trends for 16 major companies in the technology market.

Company	Symbol	Year Ago	Jan. 12	Jan. 22	% change from previous week
Avaya	AV	\$11.62	\$14.25	\$13.50	▼ 5.26%
BEA Systems	BEAS	\$10.48	\$12.86	\$12.11	▼ 5.83%
Computer Associates	CA	\$29.49	\$24.86	\$24.50	<b>▼</b> 1.45%
Cisco Systems	CSCO	\$18.96	\$28.92	\$26.53	▼ 8.26%
Dell	DELL	\$30.60	\$26.62	\$24.49	▼ 8%
Electronic Data Systems	EDS	\$24.80	\$26.85	\$26.22	<b>▼</b> 2.35%
Google	GOOG	\$466.98	\$505	\$480.84	<b>▼</b> 4.78%
HP	HPQ	\$31.99	\$43.53	\$42.02	▼ 3.47%
IBM	IBM	\$83.70	\$99.34	\$97.11	<b>▼</b> 2.24%
Intel	INTC	\$25.77	\$22.13	\$20.79	▼ 6.06%
McAfee	MFE	\$28	\$29.35	\$28.14	<b>▼</b> 4.12%
Microsoft	MSFT	\$27.15	\$31.21	\$30.72	▼ 1.57%
Oracle	ORCL	\$12.53	\$17.50	\$17	<b>▼</b> 2.86%
Red Hat Software	RHT	\$28.84	\$22.16	\$21.79	▼ 1.67%
Sun Microsystems	SUNW	\$4.70	\$6.06	\$5.75	▼ 5.12%
Symantec	SYMC	\$19.48	\$20.48	\$17.50	▼ 14.55%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions

#### BUYERS' GUIDE MARKET WATCH

# Power Management Devices

#### **Different Ways** To Manage The Juice

by Sixto Ortiz Jr.

TODAY'S POWER MANAGEMENT DEVICES can give administrators tons of flexibility, enabling them to, for example, turn equipment on or off or reboot equipment remotely. This is a boon for administrators who are managing large hardware infrastructures and maintaining high levels of uptime and availability. Any tool that can ease the administrative burden and make life easier is a welcome addition to the data center administrator's arsenal.

#### The Marketplace

"If you go to any data center conference today, the top two issues are power and cooling," says Calvin Nicholson, marketing manager for Server Technology. Nicholson adds that the market outlook is very bright due to blade servers, higher power demand devices, higher density cabinets, and the fact that industry is still thirsty for more computing power.

"Growth is being fueled," says Nicholson, "by higher power requirements with 3-phase 208V 30A power or even 60A power being brought to the cabinet level." Also, he adds, the growth of the PDU (power distribution unit) market and companies' understanding of the unique features that metered, smart, and switched PDUs can provide facilities are also fueling market growth. Now let's take a look at a few power management devices and the capabilities that they bring to the

#### **Avocent Cyclades PM IPDU**

Avocent's Cyclades PM IPDUs (Intelligent Power Distribution Units) are available to conform to either IEC or NEMA specifications. The Cyclades PM IEC models come in a variety of capacities, namely 10A, 15A, 16A, 20A, 30A, and 32A. The two RS-232 ports on the units allow for both remote management and for expansion via daisy-chaining; for example, the product can be implemented to remotely control up to 128 power outlets using one of the two RS-232 ports.

Other features include independent control of power outlets, on or off states per outlet, visual and audible alarms, temperature sensor, and 10-outlet-per-1U density. The product also incorporates security features, including authentication via a variety

#### Server Technology Sentry Fail-Safe PTXL

The Sentry Fail-Safe PTXL (Power Tower XL) power management and distribution device provides an extra measure of

relief for administrators by featuring two in-feeds for two banks of eight outlets apiece. The company's "Fail-Safe" method allows the "A" in-feed

to automatically power the outlets in the "B" in-feed in case that in-feed is disabled and vice versa. The failover occurs within 18 milliseconds, so equipment affected by an in-feed failure is transferred to the redundant in-feed in an instant, ensuring continued operation.

Server Technology's lineup features eight models with voltages of 100 to 120 VAC and 208 to 240 VAC (at 50/60Hz). Maximum line currents for these models are 20 and 30 amps and are built according to both NEMA and IEC specifications. For security, the Fail-Safe PTXL products feature 16-character username and password authentication; user accounts with restricted access rights; and authentication using various protocols, including SSHv2 (Secure Shell for secure remote terminal), SSLv3 (Secure Sockets Layer HTTPS server), MD5, and Active Directory with LDAPv3.

Other features include remote management for both servers and networking gear, power-up sequencing to prevent overloads at

Server Technology Sentry Fail-Safe

Power redundancy provides seamless failover

startup, input current monitoring, and a

Web-based interface for administration and

configuration. The addition of the EMCU-

1-1 enables monitoring of environmental

parameters such as temperature, moisture,

and door status. Also, the unit can be

expanded via the addition of the Power

IPC3600

Pulizzi Engineering's IPC3600 PDU

Tower Expansion Mod-

ule, which lets the PTXL

control 32 more outlets.

**Pulizzi Engineering** 

www.Processor.com/ServerTechnology

**Power Tower XL** 

\$1,049

**SNAPSHOT** 

outlets. And administrators can schedule on or off events for individual outlets or groups of outlets. Other software features include email alerts and notifications, firmware upgrades via FTP, Telnet and



Pulizzi Engineering IPC3600 Series

IPC3601: \$699; IPC3602: \$699

Flexibility for outlet management, including user access group creation

www.Processor.com/IPC3601

serial interfaces, and read/write SNMP capability with trapping.

Both the IPC3601 and IPC3602 models have 16A current ratings and 20A circuit breakers and feature voltages of 100 to 240V (IPC3601) and 120V (IPC3602). The IPC3601 features eight IEC C13 outlets, while the IPC3602 features eight NEMA 5-15R (three-prong) outlets.

#### Western Telematic NetReach Model CMS-6R4

The NetReach Model CMS-6R4 console management switch combines access to

> console ports on equipment (via six serial ports) with the remote power management capabilities incorporated in the device's four power out-

Remote power management features include re-

mote reboot and power on and power off. Outlets can be assigned plug names so operations such as checking plug status and on, off, and reboot can be easily performed. Also, administrators can assign power-on times to individual plugs, so equipment turns on sequentially in time instead of all

The device features an internal 33.6Kbps

modem, so connectivity is just a matter of dialing in to the device and supplying a password for authentication. And if a user cannot supply the required credentials, that user is locked out of the device. A capture buffer on the

device allows ports to store the last 32KB of received data in nonvolatile memory, so the data is accessible at any time. According to Western Telematic, this feature is handy for storing critical information, such as event logs or alarms.

#### **Cyber Switching Dualcom Plus Series**

Cyber Switching's Dualcom Plus power distribution units include remote power management options that let the user turn devices on and off either manually or on a schedule.

#### SNAPSHOT

Western Telematic NetReach Model CMS-6R4

Power and equipment management in one box

www.Processor.com/CMS-6R4

#### **Buying Tips**

Server Technology's (www.servertech.com) Calvin Nicholson offers tips for shopping for power management devices.

- · Look for devices that are UL 60950-1approved, says Nicholson. Also, 30A devices must have branch circuit protection; devices with breakers should use UL 489-compliant breakers; and devices with fuses should use UL 248-approved fuses.
- · PDUs with a current load meter, says Nicholson, should have a large, easy-toread meter and one meter per branch circuit. This makes it easier for administrators to walk by locked cabinets and easily see what's going on in the rack.
- Nicholson says to look for devices that feature the ability to add environmental monitors (such as temperature and humidity) on the fly and without the need to install additional hardware.
- · Smart and switched PDUs with an integrated, Web-based GUI, Nicholson says, should have the proper communication and security options. Things to look for include devices with Web interfaces, SSL, SSH, Telnet, SNMP, serial RS-232 access with a scriptable command line interface, LDAP, TACACS+, and DHCP. Serial access, also called out-of-band access, is a good option, he adds, because administrators can reach the device even if the IP connection is down. And finally, the device interface should let multiple users log into the PDU at the same time.
- · When managing a large number of PDUs in multiple locations, software packages should auto-detect all devices, allow access to all devices from one location, and provide data logging, trending, and easy-to-manage alarm notifications.

Also, the Dualcom Plus lineup features circuit breaker protection on a per-outlet basis. Administrators can set unused outlets on the device to trip when a minimum current limit is reached, thus preventing the connection of an extra device to accidentally trip the entire circuit. When the limit is exceeded, only the outlet where current



#### SNAPSHOT

#### **Avocent Cyclades PM IPDU**

Cyclades PM10-15A IPDU 10-Port Horizontal 115V, 15A with Nema 5-15P Plug and Nema 5-15R Outlets: \$749

Cyclades PM20-20A IPDU 20-Port Vertical 115, 20A with Nema 5-20P Plug and Nema 5-15R

Easy expansion with daisy chaining

www.Processor.com/Cyclades

of server-based methods, such as RADIUS, TACACS+, Kerberos, LDAP, and Active Directory. Also, RSA SecurID token-based authentication is an option.

#### comes in a 1U rackmount form factor and provides serial RS-232 connectivity ranging from 9,600 to 38,400 baud. Also, administrators can connect to the unit via 10/100 Ethernet using the RJ45 port and DHCP. Any browser can reach the software's Web-based interface, and secure login (password) authentication controls access. Also, the device provides administrators with the ability to control user access on a per-outlet basis, so administra-

The interface provides administrators with a quick view of outlet status and the ability to issue commands to one or more

lets they need to control.

tors can give users rights over just the out-



#### **SNAPSHOT**

**Cyber Switching Dualcom Plus Series** 

Circuit breaker protection and monitoring per outlet

www.Processor.com/CyberSwitching

goes over the limit is tripped, effectively limiting the failure to a single outlet.

Other features include current monitoring on each outlet; management via Web browser, Telnet, or SNMP; username/passwordbased security; event logging; customizable outlet names; and over/under current alerts.

To see Processor Showcase advertisements for products in this category, look online at www.Processor.com and find the Power Management ads under Physical Infrastructure.





#### UltraMatrix™ Remote

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- View 4 computer connections using the quad-screen mode



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- View 4 computer connections using the quad-screen mode



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- Secure encrypted operation
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- Available in single, dual, and quad models

#### PC, Sun, Apple, USB, UNIX, Serial Devices



#### **KVM Switches**



#### UltraMatrix™ X-Series

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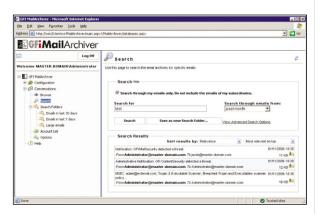
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GFI MailArchiver makes it easy to search for and access emails.

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# Deduping Your Way To Storage Efficiency

#### **Data Deduplication Cuts Down On Repeated Data**

by Ericka Chickowski

As the regulations requiring better data archiving on multiple fronts keep marching in, more and more small to medium-sized enterprises are forced to push their storage resources to the max. Public companies have had a taste of the need to keep thorough electronic archives for some time now since the advent of Sarbanes-Oxley. Now even the smallest organizations are forced to get into the act with the passing of new federal rules controlling discovery of electronic documents in the courtroom.

Effective December 2006, the new Federal Rules of Civil Procedure state that electronic documents and communication including email and instant messages are as relevant as any paper documents. Businesses are required to have a policy regarding e-documents and must be able to quickly find stored information relevant to a case.

This last caveat is especially headacheinducing to IT staff who must find this information amidst data storage that is potentially already bursting at the seams. Not only does the specific data have to be kept, but it needs to be quickly retrieved, as well.

For this reason administrators have been looking for better ways to cut down on file and data duplication within the storage infrastructure.

As anyone in the IT environment will recognize, there are plenty of times where multiple instances of the same file will be captured and stored. By trimming replicated files down during archiving and backup, an organization can not only reduce the amount of hardware needed for archiving, it can also reduce the even more costly time required for administration and data retrieval.

#### Redundancy Is Not Always Good

For a long time now, IT professionals have been taught that redundancy is a good thing. While backing up remains important, there can be too much of a good thing. For example, a 2MB file might be emailed to 20 different people—that's 38MB of data

that is unnecessarily stored and backed up and 19 more files that need to be sifted through during retrieval.

Often used interchangeably, SIS (single instance storage) and data deduplication help to reduce the amount of data that is stored, thereby saving space and cutting down on

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backup time. SIS is typically identified as deduplication that occurs at the file level. In the email example, this means that one copy of the attached file would be saved while the other 19 would be eliminated and replaced by what is called a "stub," basically a pointer that refers to the stored file. This has long been a feature in Microsoft Exchange, and it was added to Windows Storage Server 2003

Other technology can take the principle of SIS even further by deduplicating not

R2 in late 2005.

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# Smaller Players In The Backup Market

Big Names Aren't
The Only Ones Making News

by Elizabeth Millard

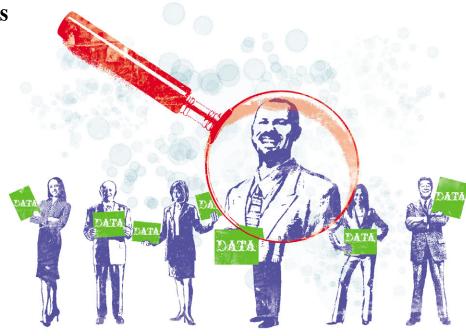
In the Backup Industry, a large chunk of the market belongs to Symantec (www .symantec.com), a company that brings together a number of services and security technologies. The vendor became a particularly major force a few years ago, when it acquired Veritas, a software developer that specialized in backup products.

But beyond the Symantec powerhouse is a host of smaller firms that are offering compelling backup options, particularly for small and medium-sized enterprises. Here are some candidates worth noticing.

#### **CommVault**

An increasingly strong contender in the backup market is CommVault (www.comm vault.com), a company that went public last September and has since won major enterprise contracts, boosting its revenue over 40%. This rise in fortune could be good for SMEs because the company's strength is leading to more development of features in its flagship line of products, QiNetix.

As part of that product family, Comm-Vault offers Galaxy Express, a streamlined version of enterprise-level Galaxy Backup. What makes the small to midsized enterprise version unique is that companies



actually have the entire codebase for Galaxy and can basically upgrade by getting a verification code to unlock additional features, says Dave West, CommVault vice president of marketing and business development.

Having the entire application available is very handy as companies grow, he notes, because they don't need to do a major upgrade or change schedules for backup jobs. They simply unlock more features that immediately integrate into backup functionality already in place.

"More and more SMEs are dealing with how to scale up in backup as they grow," says West. "It can be tricky because you want to layer more features on top without losing everything you've put in place. Galaxy Express can help customers do that."

Dell users could benefit the most because the computer company has three Galaxy Express packages available: a Microsoft

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#### **EVault**

A major trend in backup and recovery has been the evolution of managed services, which can be appealing to companies that don't have the staff or expertise to juggle multiple backup technologies. EVault (www.evault.com; soon to be part of Seagate Technology [www.seagate.com]) has been working to make a name for itself in the increasingly crowded field, stressing its devotion to its SME customers and packing more features into its technology suite.

The company offers two services that are geared toward smaller enterprises: EVault Protect and EVault Small Business Edition (aka SBE). Both are online, automated disk-to-disk backup and recovery services and differ in how much can be stored in a

Go to Page 11



Perhaps the greatest barrier to wider adoption of online backup techniques is inertia. Both EVault's Heitmann and NetMass'

Perkins feel that education is the greatest tool to build sales. According to Perkins, "Many IT people do not realize the sophistication of the solutions provided by the higher-end online backup services. A five minute conversation is usually all that is necessary to

In addition, many companies find it hard

to free the financial resources to migrate off legacy tape systems. Heitmann says that

"although companies understand the bene-

fits of online backup, they are constrained

by limited resources and budget. SMEs

view online backup as insurance and tend

to invest in solutions that have immediate

impact to their revenue. Therefore, SMEs'

decision to implement online backup solu-

Although online backups aren't a pan-

acea for every SME, they offer unique

capabilities that can't be matched by tape

systems. Whether you're seeking to reduce

employee overhead, minimize costs, im-

prove backup reliability, or implement con-

tinuous data protection, online backups are

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# Online Backups Edge In To The SME

#### **Barriers To Adoption** & How Companies Are Handling Them

by Chris Jackson

FOR MOST IT DEPARTMENTS, data backup has traditionally meant backing up and archiving company data to magnetic tape, either archived offsite or rotated on a routine basis to ensure data safety in case of a disaster. Yet the emergence of affordable high-speed Internet connections has enabled a niche backup strategy to flourish for small to midsized enterprises: Online backups to remote locations offer numerous advantages over traditional tape strategies.

#### Online Backup Advantages

According to Stephen Perkins, president and CTO of NetMass (www.netmass.com), the greatest advance online backups offer

over tape is validation. "Once you send a tape offsite, you lose the ability to validate the data on that tape. To 'prove' that you can recover data from that tape, you would have to call the offsite facility and have them deliver the tape back to you." With tape in hand, you would attempt to restore the archive, and hopefully your backup would be successful.

In contrast, online backups provide the ability to immediately verify the validity of your backup. Says Perkins, "Quality online backup providers provide the ability to 'validate' a backup set. This operation instructs the online backup service provider's data center servers to open your backup set and reconstruct your original data files (this includes decrypting files, uncompressing them, and

applying any delta files). Once the operations are complete and the files have been reconstructed at the service provider's end, the systems run a digital fingerprint (mathematical checksum) on the files to prove that they are identical to the files that were originally sent by the customer."

In addition, Richard Heitmann, vice president of product management at EVault (www.evault.com; recently acquired by Seagate), says, "Traditional tape exposes the vulnerability of one's data—reliance on employees for manual backups can create error and neglect; transit and storage of tapes poses a tremendous security risk. However, online data backup ensures mission-critical data is protected and safeguarded from loss, misplacement, damage, and manipulation."

#### **Challenges To Adoption**

One problem that all online backup vendors have to cope with is how to manage customers with large datasets. Most vendors rely on a twofold approach: using a "preload" system where the SME backs up data to a NAS shipped by the storage vendor and powerful data optimization techniques that only back up changed data.

The converse of this problem is restoring large datasets in the case of a disaster. EVault's Protect QuickShip module is used for initial data storage, but when a disaster

level of security. "Password-protected, the encryption process first starts at the data level by using 256-bit AES encryption, and then [the data is] encrypted during transmission using 128 SSL wire encryption. Finally, the data remains encrypted in our secure offsite data facilities—safe from disaster and human intervention." Both EVault and NetMass report that the majority of their customers access their services through the public Internet, eschewing dedicated connections.

Perkins also feels that the physical security offered by online backup vendors such as NetMass is well beyond what most SMEs have at their premise: "We are in Tier-1 data centers that benefit from very tight physical security. The buildings are wrapped in Kevlar; they are well above the 100-year flood mark; they have 24/7 manned security personnel, biometric access, motion-activat-

ed cameras, etc."



Although affordable Internet connectivity is widely available for many SMEs, most online backup vendors go to great lengths to minimize any detrimental side effects imposed by using an SME's Internet connection. According to Perkins, "As with any good online backup software, we apply a number of very sophisticated data optimization techniques that 'reduce' the size of the data (data deduplication, delta-block processing, and compression). These techniques are very effective in reducing the amount of data that must go across the wire."

These strategies are complemented by bandwidth-throttling procedures that allow the SME to

select how much of its Internet connection is used during the backup procedure. "Companies can set the amount of bandwidth to be used according to a preset schedule (for example, limiting bandwidth usage during the day and maximizing usage at night)," says Heitmann. Not only does this prevent strangling the SME's Internet connection, it helps minimize maintenance windows. According to Perkins, "By allowing the backup software to continually protect emails and file servers, you can benefit from a 24-hour backup window."

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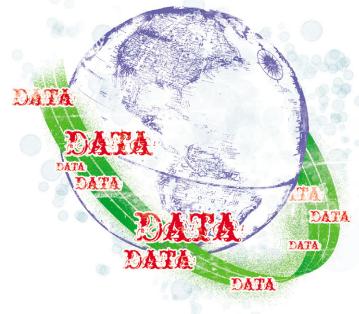
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strikes, the customer can request EVault to priority ship a QuickShip module with all of the SME's data. "For example, an entire Exchange Server can quickly be restored by loading the most recent backup on a QuickShip vault, which is then priority shipped to the customer, where it can be restored at LAN speeds," says Heitmann.

As with any change in IT habits, security is a common concern. Yet both EVault and NetMass stress that their end-to-end security is far stronger than tape. As companies struggle with the impact of Sarbanes-Oxley and other regulatory regimes, Heitmann

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# **Deduping Your Way To Storage Efficiency**

Continued from Page 8

only at the file level but also at the block level. At the block level, deduplication software will scan for repeated data patterns. It will create a file position pointer to the pattern and only keep the first instance of the pattern. These methods can be particularly useful when small changes are made to files. Rather than keeping both versions in their entirety, deduplication allows for only the changes to be archived and/or backed up.

#### Results

Vendors make claims that deduplication and single instance storage can compress data down anywhere from a 5:1 ratio to a 50:1 ratio. Typically, the higher levels are a result of block-level technology.

Some analysts believe that deduplication and single instance storage may also completely shake up the backup market. "Data deduplication is going to change the world of secondary storage forever. Tape dominated the secondary storage industry for years; it was hard to beat," said a recent analyst report by Glasshouse Technologies

(www.glasshouse.com), a firm specializing in independent storage services. "But now that we're storing data on disk, we can start to do some interesting things, the first of which is identify redundant data and get rid of it without impacting restore speed. The impact that this will have on the cost of disk-based secondary storage is nothing short of tremendous."

Some organizations are choosing to cut down on tape backup in favor of disk-based solutions now that the amount of space needed is reduced. This can cut down on administration time and reduce security risks associated with removable media.

At Adaptec (www.adaptec.com), Systems Manager Kelly Overgaard says she was able to significantly cut down on the amount of

data stored by implementing Avamar Axion (www.avamar.com). (EMC recently acquired Avamar, one of the significant leaders in the deduplication space, for \$165 million.)

Page 11

"They attack the problem at the source," Overgaard says of Avamar, "enabling us to cut the amount of data stored to protect our environment by as much as 90%. The flexibility of the software also allows us to run on our own storage hardware." Adaptec reports that it reduced the time for full backups from 80 hours down to eight hours.

### **Deduplication Options**

Method	How It Works	Benefits	Vendors & Products
File-level deduplication (single instance storage)	Searches for duplicate files on a disk volume and replaces them with a shortcut Simpler technology, more affordable	Microsoft Exchange and Windows Storage Server 2003 R2 (www.microsoft.com) FalconStor Single Instance Repository (www.falconstor.com) Njini IAM Suite (www.njini.com)	
Block-level deduplication	Scans for repeated patterns at the byte level and replaces them with metadata that points to the first instance of the repeated pattern	Useful for multiple versions of a file or for data that is repeated in multiple files, such as a company logo	EMC Avamar Axion (www.avamar.com) Data Domain Capacity Optimized Storage (www.data domain.com) Quantum DXi3500 and DXi5500 (www.quantum.com)

# **Smaller Players In The Backup Market**

Continued from Page 9 specific timeframe. Protect stores up to 500GB of data for a year online, while SBE

stores up to 30GB for one month online.

The company manages the data and applies encryption, but clients have control over how the data is handled, says Richard Heitmann, EVault's vice president of product management. To attract more SBE and Protect customers, the firm frequently emphasizes its affordability and reliability, as well as the ease of use with its Webbased management console.

"The challenges SMEs face include limited resources and budget to maintain a reliable and cost-effective backup solution," Heitmann says. "Customers want a backup environment that provides complete data protection safe from disaster and human error. Additionally, SMEs want to ensure their backup solution meets applicable compliance requirements and is scalable to their growing data needs."

#### **NetMass**

Another vendor in the growing online backup space, NetMass (www.netmass.com) offers online backup software and a service that combine to make it easier to archive data. Called SystemSafe, the offering works when a company downloads the software and then uses the service to shuttle data to offsite data centers.

Although many SMEs are still weighing the benefits and drawbacks of keeping their

data offsite at a third-party center, NetMass has seen a huge upswing lately in smaller companies choosing this type of outsourcing, says Stephen Perkins, the company's president and CTO.

"Many SMEs have found that there isn't one solution that meets everybody's needs," Perkins says. "So, they end up with environments where there's a mix and match of technology, and that can be challenging to handle. I think that's one of the reasons they're choosing to just outsource the backups."

The company could also interest SMEs for its recently launched ServerSafe CDP, a continuous data protection service that targets Windows, Linux, and Exchange servers. Perkins believes that the service is unique in its focus on saving SMEs money while understanding their specific backup needs, such as needing more data duplication or doing live backup.

#### Arsenal

Whether a company opts for completely outsourced backup or a mix of offsite storage and in-house management, one major trend has been a demand in more enterprise-level capability, says Brian Reagan, chief marketing officer at Arsenal Digital (www.arsenaldigital.com).

SMEs feel that they shouldn't get applications or services that were originally created for large enterprises and then later "tailored" for SMEs. Sometimes, the development of these small business packages involves a slash-and-burn approach to features and can make an SME feel like some functionality is missing when they try to manage data.

In response, Arsenal has attempted to be the SME-friendly company and manage the tricky feat of packing enterprise-class functions into a more affordable, less complex backup application for smaller enterprises.

"Companies are looking for more integrated stacks of capabilities at a lower price point," Reagan says. "In the past, to get

more integration, you'd have to buy more. But it doesn't have to be like that now."

Arsenal's pitch is that storage management can include backup but also blend together other functions, such as archiving and disaster recovery, without busting the budget. The company is also notable for offering a range of services, from tape- and disk-based backup to SANs, mirroring, online data backup, bare metal restore, and remote monitoring.

"SMEs have become more savvy about augmenting what they have already and filling in gaps," says Reagan. "They can bring other elements into their backup plans and build a stronger data protection strategy."

## **One To Watch: Yosemite Technologies**

While some companies have created small to midsized enterprise products to go with their other software and service lines, Yosemite (www.yosemitetechnologies.com) focuses exclusively on the SME market, which gives it an advantage in understanding the needs of smaller enterprises. The company has been keen to create products that span from the desktop to the small data center and has a strong understanding of the issues that SMEs are facing, says Mitchell Cipriano, Yosemite vice president of marketing.

"The biggest challenge for SMEs is combining ease of use with value," Cipriano notes. "More than that, there's continually increasing sophistication about data protection, and SMEs are looking for products that can be more flexible."

Yosemite specializes in backup products for environments running Windows, Linux, and NetWare and has seen favorable reviews for products such as Yosemite Backup Advanced, which has been praised for its ease of use.

The company should be worth watching not just for its product advancements but in terms of overall growth, considering that last October it appointed a new CEO, George Symons, who had been CTO for information management at storage giant EMC (www.emc.com). Responsible for defining EMC's product and technical strategy, he also played a key role in integrating Legato enterprise backup and recovery products into EMC's product family. Having such a heavyhitter at the helm, Yosemite has the potential to give even Symantec (www.symantec.com) a competitive challenge in the backup industry.

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# **Can CDP Save Your Data?**

Continued from Page 1 predetermined set of snapshots is crucial to the SIG's definition, which calls for "infinitely variable recovery points."

Today, many vendors offer near-CDP products that let companies restore to hundreds or even thousands of restore points, often based on snapshots at predefined intervals. But purists, among them companies such as Symantec (www.symantec.com) and Mendocino Software (www.mendocinosoft

#### What's It Take?

Continuous data protection is neither complex nor forbidding. In fact, the best CDP solutions are "out of band"—that is, they rarely affect your production environment until the moment they're deployed, and even then, their impact is minor if not minimal.

"Most of the offerings that are getting sold into midsized companies are predominantly software-based," says analyst Steve Norall of The Taneja Group, a consulting firm with a focus on the server and storage market. He adds that midmarket CDP products are often designed for common enterprise apps, such as Exchange.

Take Mimosa's NearPoint for Microsoft Exchange Server (www.mimosasystems.com), a good example of a common CDP setup, according to Norall. NearPoint's software is host-based, meaning it resides on its own server apart from Exchange. It archives Exchange data to the server that hosts it, or to any range of external storage you choose, from directattached storage to a NAS box to complex SAN architectures, depending on how much data you have and how complex your needs. Use as little or as much hardware as called for.

.com), insist that true CDP frees you from choosing an RPO (restore point objective) of five minutes, 10 minutes, or one day. Instead, it gives you any RPO you please. Your backup window is reduced to zero.

"That's really what the key difference is between near-CDP and true CDP," says Eric Burgener, Mendocino's vice president of marketing. Mendocino is an OEM whose InfiniView platform for CDP is rebranded and then sold by a number of vendors, including HP (www.hp.com). "The basic difference seems to be, is the product creating snapshots ahead of time and saving a lot of snapshots, or is it saving data in such a way that you can go back and retroactively create an image of any time that you might select?"

Michael Parker, who heads global marketing for Symantec's BackupExec, agrees. "Snapshotting is not continuous protection," he says. "Our definition from a Symantec perspective is pretty much in line with what would be the SNIA definition. . . . The minute a change is made, that change is protected."

#### When, Where & Why

Backups are like insurance: You want different levels of coverage depending on what you're insuring. So where do you need the all-encompassing blanket that CDP offers?

According to Mendocino's Burgener, there are three things to look for. "The three are 7/24 availability, high data rates, and whether the application being down costs the company a lot of money," he says. Otherwise put, don't use CDP, which is more expensive than tape and standard backup solutions, for the Napster downloads or even the file servers whose content is changed three or four times per day.

"The perfect app for it [CDP] is Exchange," says Burgener. Why? Because even a small Exchange system can run 50 transactions per second, meaning a 10minute backup window could leave important data, and reams of it, lost in the ether.

With Exchange, enterprise-grade database tools, and mission-critical apps, CDP allows administrators to "dial back to arbitrary points in time," says Parker. And the freedom to restore at will means less data is lost. "You eliminate your backup window," he adds. "You can recover a lot faster, it's a lot more recent, and the reliability is improved because of the fact that it's going to disk."

#### **Different Strokes, Different Folks**

Not every CDP product is the same, of course. True CDP, products that offer complete, retroactive restores to any point in time, varies from vendor to vendor, often in novel ways.

Symantec's BackupExec lets end users restore their own documents through an easy-to-use, Google-like interface called Retrieve. A user who unwittingly zaps a spreadsheet can search using the document's name and view results in searchengine format. Merely click the file to restore it, and Retrieve takes care of the rest. (Running complete restores, of course, remains the sole province of the IT department, and users can only search for documents on which they have permissions.)

Mendocino's InfiniView relies on patented tree algebra to speed up restores to three seconds. And it lets IT managers build as many copies of restored data as they like, so they can give an image to each department that wants it, often at the same time and without disturbing the production environment. Thus InfiniView, according to Burgener, can be used for "reporting, analytics, testing, and developing. . . . It's not just for recovery."

The bottom line? True CDP can protect your data with the infinite restore points

#### Is Tape On The Wane?

Tape is to backups like meat is to Mc-Donald's—a staple and part of every meal. But that could change, and a growing understanding of disk-based CDP is part of the reason. "50 to 70% of my customers are now implementing disk-based solutions," says Symantec's (www.symantec.com) Michael Parker. "In the last three months, I am amazed at the number of solutions providers that are counseling their end users to not even back up to tape. Tape is not by any means dead, but I'm hearing more and more about folks going, 'No, I'm not backing up to tape."

#### SPONSORED LINKS

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Ideally suited for implementing consolidated remote replication and continuous backup based on CDP technology www.Processor.com/DR-Scout

#### Mendocino Software InfiniView

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#### NetMass System Safe Server Backup

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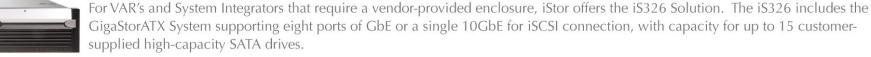
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# **Outsourcing Email Security**

Continued from Page 1

growing number of service providers is a quick, no fuss way of protecting internal email systems.

#### Services Overview

Email security is one of the most easily implemented outsourcing services because it doesn't require onsite equipment or external access to private servers and networks. Setup involves changing a domain's DNS MX (mail exchange) record to point to the service provider's mail gateway, so all mail is first routed through their systems. The vendor's gateway is usually a virtual address load balanced across multiple enterprise-class filtering appliances, ensuring nearly 100% uptime.

Incoming mail is filtered for viruses, spam, and (optionally) inappropriate content prior to being forwarded to your corporate gateway. Blocked content is quarantined, allowing manual review by either administrators or individual users, for false positives. Because the filtering is entirely external to corporate networks, it does not interfere with any other security devices or services, such as an internal firewall or intrusion detection services, a company may have in place.

According to research by the Yankee Group, a potentially important differentiator among various hosted services is whether they provide outbound message cleansing and policy compliance—restrictions for appropriate usage, protection of sensitive data, reporting/logging, etc. because egress controls aren't a standard feature of all providers.

#### Managed Services Advantages

The obvious advantage of using an email security service is the convenience of someone else managing the processes and infrastructure associated with message filtering and delivery. However, one of the hidden, yet significant benefits of using a hosted service is the elimination of all network traffic associated with spam, says David Troup, CEO and founder of MailFoundry (www.mailfoundry.com). He's found that most of MailFoundry's hosted customers don't want any potentially threatening email

traffic clogging their internal networks, noting that with the growing use of image spam, unwanted email traffic can significantly tax SMEs with congested Internet connections. According to Commtouch (www.comm touch.com), image spam averages 18KB per message, roughly three times the size of traditional spam, and spikes in image spam traffic can increase bandwidth and email storage usage up to 70% over background levels.

Joel Smith, CTO of AppRiver (www.app river.com), notes that another hidden advantage of outsourcing email security is offloading the connection management involved with running an email gateway. Given the increasing use of so-called zombie networks of compromised client PCs to distribute spam, distinguishing between legitimate relay networks and spam-spewing zombies is complicated and time-consuming. According to Smith, about 10% of AppRiver's customers now use its service primarily to ensure that valid mail gets through and to avoid DoS attacks by letting AppRiver manage its email connections and discriminate between legitimate senders and compromised networks.

Outsourcing can also be quite cost effective for an SME. The cost of antispam appliances varies widely, with MailFoundry having some of the most aggressive pricing. Of course, even an appliance with automatic updates requires a level of in-house support, so factoring in personnel costs, hosting services may be less expensive and are particularly attractive to businesses with limited IT resources. According to Troup, given the modest cost of either solution—hosted or appliance—the choice is "not so much pricedriven as by your IT philosophy."

Another potential advantage of outsourcing is the ability to scale investment to precise usage requirements without overbuying equipment. A service provider can rapidly adjust to changing user populations whereas an in-house solution often entails buying more equipment than initially required.

#### **Potential Disadvantages**

Other than cost, one reason some businesses resist using an email service provider is the loss of local control over critical

infrastructure. As Troup mentions, this often is a function of a company's IT philosophy.

Another potential disadvantage is delivery reliability, as a service provider interjects another "hop" in the email chain, potentially adversely affecting delivery reliability. Service providers mitigate this by using fully redundant infrastructure. The service's email gateway, through which all customer mail is routed, is typically a virtual IP address that is network load balanced across two (or more) data centers. Furthermore, the filtering hardware used in each data center is itself redundant, thus, according to AppRiver's Smith, network reliability is essentially 100%.

Security may also be viewed as a potential disadvantage. Because email is an inherently insecure transport (anyone with access to the network backbone can sniff on your email traffic), having an additional layer through which mail passes isn't seen as much of a risk by customers. While a filtering service could theoretically snoop on a company's mail traffic, so could its ISP. According to Troup, MailFoundry has had no real customer concerns about security, and its customers "trust them to do their email."

In some cases, an email service provider can make email traffic more secure. According to AppRiver's Smith, its service supports secure connections using TLS (kind of like SSL for email) between the customer's gateway and their's and that they can also broker secure connections to other service providers or company. Thus, a customer using its service could set up a completely encrypted email path between its site and a business partner's site, all brokered and managed by the service provider. Such an encrypted tunnel would be more difficult to set up on one's own and possibly beyond the capabilities of most SMEs.

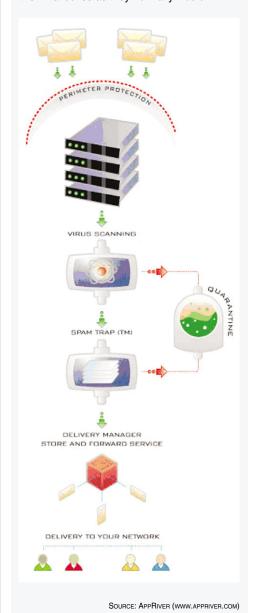
#### **Beyond Security: Fully Managed Email**

According to Smith, the next stage in the evolution of email services is hosting a company's entire infrastructure. In light of its dominance as a corporate email platform, many service providers, including AppRiver, offer hosted Microsoft Exchange services that eliminate the need for any internal hardware and software licensing. AppRiver's solution also includes its virus and spam filtering, providing a complete email solution.

Managed email security is a convenient and cost-effective solution for control of email-borne malware and spam. Other benefits include eliminating unwanted mail traffic from internal networks and obviating the need for IT personnel to manage another security appliance. Hosted services are available from a wide variety of vendors, including traditional IT services companies, specialty email service providers, and spam-control appliance vendors expanding into the managed service business. SMEs looking for an email security solution that can be rapidly implemented with no startup costs should find hosted services to suit their needs.

### **How Do Email Security Services Work?**

When using an email security service provider, all mail addressed to a customer is first routed through the service's infrastructure by changing its DNS MX (mail exchange) record. Service providers provide multiple layers of security, starting with perimeter defenses, to prevent DoS attacks. Email is then routed through redundant enterprise-class filtering appliances, which scrub for viruses, spam, and (optionally) inappropriate content. Messages trapped by one of the filters are shunted to a quarantine area where they can be manually reviewed by administrators or end users for false positives. Clean email is then forwarded on to the customer's mail gateway where it is delivered to the internal servers—end users access their mailboxes as they normally would.



#### SPONSORED LINKS

#### AppRiver SecureTide

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www.Processor.com/SecureTide

## Major Email Security Service Providers

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AT&T Secure E-Mail Gateway	www.att.com	✓
MailFoundry Hosted Anti-Spam	www.mailfoundry.com	✓
MailRoute Hosted Service	www.mailroute.net	_
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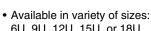
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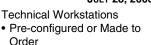


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#### **COMMUNICATIONS**

#### **Serial Networking**

■ National Instruments has released its first USB modules designed for highspeed and low-speed/fault-tolerant CAN (Controller Area Network) and LIN (Local Interconnect Network) monitoring, logging, and testing. The modules combine CAN's software and hardware quality and performance with Hi-Speed USB's benefits. NI's USB-847x interfaces provide an easy link for PCs and notebooks to automotive networks, and the interfaces are available with a sync option that lets the interface share start triggers and timestamps with other USB CAN and LIN interfaces and dataacquisition, vision, and motion devices. The USB-8476 LIN interfaces are NI's first. They can function in master, slave, and monitor modes. In all, there are six new interfaces.

#### Security

■ Cybertrust has partnered with Cisco to release the Cisco PCI Solution for Retail, which is designed to help retailers comply with the PCI Data Security Standard. The Cisco PCI Solution for Retail consists of a customizable set of recommended and audited network architectures designed for retailers of all sizes and a set of services

that will ensure ongoing compliance. Services include PCI pre- and post-audit assessments and vulnerability scans, PCI audit services for PCI certification, design and implementation services, and incident response and forensics analysis.

**■ Columbitech** introduced its Wireless VPN security platform for SuSE Linux Enterprise Server. Now Linux users can create a VPN server and firewall using the software. Once installed and configured, the offering provides mobile individuals and enterprises protected and reliable access to mission-critical systems across any IP network, regardless of platform. The Wireless VPN product also supports Windows 2000/XP, Windows Mobile 2003, Windows Mobile 5, Symbian 9.1, pSoS, DOS, and VxWorks.

■ Digi International introduced a UMTS (Universal Mobile Telecommunications System)/HSDPA (High-Speed Downlink Packet Access) version of its ConnectPort WAN VPN, an upgradeable, commercialgrade WWAN (wireless WAN) router. The ConnectPort WAN VPN offers a secure, high-speed cellular connection for reliable backup network connectivity. This router features an embedded Sierra Wireless PCI Express Mini Card module and is certified for use on Cingular's 3G UMTS/HSDPA network. The ConnectPort WAN VPN includes an enclosed Sierra Wireless embedded module that eliminates the need for an external PCMCIA (Personal Computer Memory Card International Association) card. The ConnectPort WAN VPN features an embedded four-port Ethernet switch, two RS-232 serial ports, and one USB port. Users can manage the ConnectPort WAN VPN locally via a builtin Web interface or remotely using Digi Connectware Manager.

■ Lancope has integrated its StealthWatch NBA (network behavior analysis) system with TippingPoint's IPS (Intrusion Prevention System). It uses IPS' quarantine functionality for in-line policy enforcement and to protect endpoints from external and internal attacks. The flow-based system can contain infected devices and block malicious traffic. StealthWatch takes advantage of TippingPoint's enforcement capabilities, such as the remediation Web page, port blocking, and redirecting infected end points to secure VLANs.

■ The VF2110 is **Mistletoe's** first security product for SMEs. The SoC VF2110 offers VPN, IDP, and DDoS protection to SMEs, VARs, and ISPs, thanks to its Layer 4-7 RDX processing technology on an ASIC. There are antivirus and URL filtering

services on tap, as well as 200Mbps VPN and firewall performance.

#### Video

- ASUS announced the XG Station, an external graphics card station for notebook computers. The XG Station comes with Hi-Speed USB and Dolby headphones for multimedia applications. The product also provides a 3D graphics engine to a mobile system through an Express Card connector. The XG Station includes a PCI Express slot and supports future technologies, such as HDCP and HDMI. A large LED screen is integrated for displaying system status. The XG Station will be released at the beginning of Q2.
- ATEN announced the VS-0202, VS-0204, and VS-0404 Video Matrix Switches. The VS-0202 includes two ports for transmitting video and audio signals from two systems to two displays and speakers. The VS-0204 supports transmitting video and audio from two systems to four displays and speakers, and the VS-0404 supports transmitting video and audio from four systems to four displays and speakers. ATEN's switches enhance video signals over distances of up to 65m and provide up to 300MHz of bandwidth.

Go to Page 16

# Complete Security Card System In A Box

#### **Datacard Makes Creating** Cards As Easy As 1-2-3

by Curt Harler

JUST AS COMBINATION MEALS provide a burger, fries, and soda in one package for a good price, SMEs can purchase a complete security card identification package—a system with everything from soup

Datacard 1-2-3 from Datacard Group is a complete ID card system including card printer, software, camera, cards, and the sundry supplies needed to issue ID cards.

The system lists at \$1,895 without magnetic stripe encoding and \$2,395 with magnetic stripe encoding. While it is designed as an entry-level card printing system for SMEs, it is engineered to allow upgrading to more sophisticated hardware and software when the need arises.

Using Datacard 1-2-3, a technician can design and print professional-looking, fullcolor cards in three steps. The camera provides 1.3MP resolution. The system supports USB connectivity on Microsoft Windows 2000/XP operating systems with the latest service packs and Internet Explorer 6.0 or later.

While it will work with 128MB of RAM, 256MB or higher is recommended. It requires a 500MHz Pentium II processor or faster, and the manufacturer recommends 450MB available disk space. It also requires a CD-ROM drive and three USB ports.

Aside from the operating system, all required software is included in the installation CD. This includes Datacard ID Works Intro identification software, the printer driver, and the camera driver.

"The ID Works identification software edition can easily be upgraded based on customer needs," says Connell Smith, vice president of ID Solutions. He points out that ID Works Intro software is the entrylevel edition. It can be upgraded to add support for biometric capture, smart cards, and specialized modules for visitor management, design, and production

It takes about 30 seconds processing time per card, so a batch of 25 cards will take 12.5 minutes.

Similar systems are available from Polaroid (www.polaroid.com), default provider of film for many other systems, which offers its ID Card Maker V5.3 software, P3000 and P4000 printers, and ID Card Maker Image Capture solutions, and Nova Graphics (www.idequipment.com), whose ID Camera System is available in three models for the production of two,



#### SNAPSHOT

#### Datacard 1-2-3 Easy ID

\$1,895 to \$2,395

Complete system consists of card printer, camera, cards, supplies, and software required to create photo ID cards

www.datacard.com

four, or six photo IDs from one sheet of Polaroid 669 film.

Smith says Datacard offers a broad range of card printers to accommodate an SME's needs as its card program grows. Color supply kits are available for reordering and include 125 blank cards, a roll of ribbon, and cleaning supplies. Datacard Certified Supplies are required for all refills, which are available through its sales channels, Connell says. Color ribbon kits cost \$100.

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**JANUARY 19, 2007** 



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STACO ENERGY PRODUCTS' FirstLine UPS is the smallest, lightest, and most cost-effective three-phase UPS available on the market today. It is easier to install and maintain than most UPS systems and provides the continuous power conditioning and protection you expect from double-conversion technology. The FirstLine UPS is designed to give you a low cost of purchase and low operation costs, with all the features you expect from a quality three-phase UPS.



#### **Computer-Grade Power**

The FirstLine UL1778-listed UPS is ideal for a range of applications, including broadcast, computer networks, robotics, medical, process industries, wastewater treatment, food processing, and manufacturing plants.

The three-phase FirstLine is designed for 10, 15 and 20kVA applications. The true online, double-conversion UPS provides computer-grade power quality at a price that is 20 to 30% below comparable kVA models. Despite its small footprint and light weight, the FirstLine has a standard battery runtime of more than 8 minutes, with optional batteries available for virtually unlimited run time.

Sophisticated transformerless power technology provides reliable blackout protection and power conditioning. Front-end harmonic correction eliminates the need for additional filtering, lowering the cost of operation. And robust double-conversion technology protects the connected load from the utility power supply, protecting it from damaging sags, swells, harmonics, noise, and voltage imbalances

#### **Technical Specifications**

#### General

- True online, double-conversion UPS
- Continuous, no-break operation
- Transformerless design

#### Input

- Input Voltage Rating: 208, 220, 480 Vac
- Input Voltage Range: +10/-20% (166-229 Vac)
- Input frequency: 60Hz +/-5%
- Full load walk-in from 25 to 100% of rated load in 10 seconds
- Surge withstand: Meets IEEE C62.41

#### Outpu

- Inverter output distortion: <5% THD (100% nonlinear)</li>
- Inverter output distortion: <2% THD (linear loads)

   And the second of the sec
- Voltage regulation: +/- 1% of nominal at full load
- Frequency: 60Hz

#### Battery

- VRLA (valve-regulated, lead-acid) battery
- Quick recharge times
- One-year prorated warranty

#### Housing

- Standard cabinet dimensions: 23 x 31.88 x 54 inches or 72 inches high
- Freestanding, NEMA 1 enclosure
- Easy service access
- Bottom access for conduit entries

#### Environmental

- Agency compliance: UL1778
- Operating temperature range: 32°F to 104°F (0°C to 40°C)
- Relative humidity: 0-95% noncondensing
- Noise: quiet operation

# Product Releases

Continued from Page 15

■ Polycom is claiming standards-based compatibility, high-definition sound and video, and relatively low bandwidth usage for its new RealPresence Experience High Definition (RPX HD) videoconferencing product. RPX HD uses Polycom's HDX 9000 high-definition video system to deliver 8- or 16-foot images on contoured walls. Resolution ranges up to 3,840 x 720 pixels at 30fps. The camera is at eye level for a more "face-to-face" experience for four to 28 people. Pricing starts at \$299,000 and requires a customized room.

#### Wireless

■ Aruba Networks released several enhancements for its Mobile Edge Architecture, which is a retail mobility package. Aruba is targeting the architecture at small and large retail stores. The package offers validated support for 802.11 wireless retail devices. Aruba's validation involves interoperability, security, and performance testing. The package also offers wireless network and device management by working with Wavelink's Avalanche MC (Mobility Center). The Mobile Edge Architecture offers PCI Data Security Standard 1.1 compliance and reports threats and vulnerabilities to the WVE (Wireless Vulnerabilities and Exploits) database. The Mobile Edge Architecture supports Voice over Wi-Fi.

■ BVS (Berkeley Varitronics Systems) has announced a new BumbleBee spectrum analyzer that includes a Tablet PC interface. The BumbleBee-TABLET is a Windows XP-based tablet UMPC spectrum analyzer with a calibrated receiver that can measure Wi-Fi, WiMAX, ISM, and Bluetooth. The BumbleBee-TABLET includes a 7-inch WVGA LCD touchscreen and an Intel Pentium processor. The tablet includes an internal 40GB hard drive. It also includes user-selectable power triggers, three pairs of markers, a spectrogram, a histogram, video smoothing, waveform averaging, one live trace, and as many as four peak hold waveform traces with peak hold and peak search.

Nuts About Nets introduced its Air-Sleuth 2.4GHz Spectrum Analyzer, which diagnoses WLANs and surrounding traffic to determine the channel that will perform best for your AP. When AirSleuth is installed on a laptop computer it provides mobile, site

survey information that facilitates optimal configuration of wireless networks and proper location of RF devices and aids in identifying potential sources of interference.

#### **END NODES**

#### **Data Collection**

■ PSC released an omnidirectional presentation barcode scanner for retail POS uses. The Magellan 1400i features solid-state construction and can read PDF-417 driver's license barcodes for automated age verification. It supports presentation and sweep scanning styles, as well as targeted barcode list scanning. It also has ergonomic grips.

#### Mobile

■ Dell announced the Latitude ATG D620 (All-Terrain Grade), its first semi-rugged notebook computer. The Latitude ATG meets military standards for vibration, humidity, and altitude and is designed to protect against accidental bumps, moisture, and other elements. The notebook has a shockmounted hard drive, spill-resistant keyboard, port covers, and high-durability paint. The Latitude ATG includes a 14.1-inch display with ambient light sensor, glass overlay, and antireflective coating. This notebook supports up to 4GB DDR2 SDRAM and features Intel Core 2 Duo processors.

#### **Monitors & Displays**

■ Cisco unveiled its Digital Signage platform, which is designed to assist organizations in the management, publication, and playback of digital media on networked digital signage displays. The offering consists of the Web-based Cisco Digital Media Manager and the Cisco Digital Media Player. Cisco is currently offering Digital Signage for a list price of \$1,490 (for the Cisco Digital Media Player) plus the cost of the Cisco Digital Media Manager, which is based on the customer's specific configuration and requirements.

■ **Dell** unveiled the Dell E157FPT touchscreen monitor. This 15-inch flat panel features surface acoustic wave technology for precise performance with outstanding clarity. This monitor also has an option to attach a magnetic stripe reader that is easy to remove for servicing. The monitor complies with the RoHS Directive, which restricts the use of certain hazardous substances in electrical and electronic equipment.

# Utilize Your Wireless Network & Save

#### **Cellular Gateway Allows Companies To Reduce Telephone Expenses**

by Bill Hayes

THE MULTI-TECH CALLFINDER CDMA cellular gateway allows businesses to reduce telephone expenses by using wireless networks instead of normal PSTN (public switched telephone network) lines to connect cell phone callers to company offices. Additionally, remote offices can use the Multi-Tech CallFinder CDMA as a complete replacement for PSTN lines, allowing

the office to use a desk telephone connected directly to the CallFinder CDMA.

For a larger office that uses a PBX phone system, the cellular gateway connects to a PBX trunk line or PBX extension and routes incoming and outgoing calls through a CDMA wireless network. The CallFinder CDMA connects a company's PBX and CDMA networks so that the calls between the two can be made at no charge and provides a backup in the case

#### **Point of Sale**

■ Microsoft, First Data, and HP have collaborated on a new POS system for small retailers. The First Data POS Value Exchange consists of retail-ready HP computer hardware running Microsoft Dynamics Point of Sale 2.0 store management software. First Data supplies broad payment option support for credit/debit cards, checks, and even gift cards.

#### **Printer**

■ Canon introduced multifunction image-Runner printer models, including the 3045, 3035, 3030, and 3025. The devices offer digital output at up to 45ppm (letter-sized), 35ppm, 30ppm, and 25ppm, respectively. Additionally, the printers offer advanced document production and storage capabilities, and they are the first multifunctional products to use tools such as Workflow Composer. The devices also use Canon's MEAP (Multifunctional Embedded Application Platform) for advanced features and Canon's imageCHIP (Concurrent Hyper Intelligent Platform) system architecture, which includes 512MB of RAM (expandable to 768MB), a 20GB hard drive, and USB 2.0 and 10/100 Base-TX Ethernet connectivity. Each model includes 550-sheet cassettes, a 50-sheet Stack Bypass, and standard automatic duplexing for support paper sizes. The devices will be available this month for \$11,600, \$9,200, \$6,600, and \$5,200, respectively.

Canon also released three new desktop imageRunner laser beam printers, including the Color imageRunner LBP5960, Color imageRunner LBP5360, and imageRunner LBP3460. The printers feature a compact design and include imageRunner printer drivers and such device-management tools as Remote UI and imageWare Enterprise Management Console, which let users integrate these laser beam printers in settings where imageRunner multifunctional devices are in use. The printers will be available this month for \$3,399 (Color imageRunner LBP5960), \$1,350 (LBP5360), and \$999 (LBP3460).

■ Primera Technology introduced its LX400 Color Label Printer. The LX400 Color Label Printer is an inkjet-based printer designed to print short-run, full-color labels at up to 4,800dpi. The LX400 prints full-color photos, text, graphics, and barcode labels. Printed labels are virtually

scratchproof and waterproof. Users can add an optional Media Cutter Accessory to produce full-color tickets and tags. The LX400 connects via a USB connection.

■ Ricoh launched the Ricoh Aficio MP 161 digital copier; MP 161F digital copier and fax; and MP 161SPF digital copier, fax, printer, and network scanner. The MP 161 Series has standard duplexing, a print speed of 16ppm, PDF Direct Print, a 250-sheet standard paper tray, a 100-sheet capacity bypass tray, and an optional 500-sheet capacity paper tray. Encrypted PDF transmission allows users to protect critical scanned documents. User Authentication ensures overall document protection by verifying the user's identity before allowing system access. Users can connect with standard 10Base-T/100Base-TX Ethernet, USB 2.0, or via the optional IEEE 1284 parallel interface.

■ Savin is targeting its 8035e and 8045e Digital Imaging MFPs at workgroups that put an emphasis on speed, security, and efficiency. The 8035e and 8045e print pages at 600dpi at 35ppm and 45ppm, respectively. Each has a 466MHz processor and 384MB of memory, and both include the Scan-to-URL feature to reduce network congestion. The devices also have a PDF Direct Print function. As for security, the printers have Network Windows and LDAP authentication and support data encryption and DOSS. Savin's DocumentMall is integrated with both devices. The 8035e and 8045e are available for \$8,890 and \$11,050, respectively.

■ TROY added the TROY MICR 3005 to its Secure Printing Solutions line. It is based on HP's P3005 LasterJet and has TROY's patented fraudulent alteration prevention. The MICR 3005 offers 100,000 prints per month at 35ppm and has a 500-sheet paper tray. TROY offers three MICR 3005 security levels: The base level offers secure check printing functionality, while the MICR Secure model adds additional security features. The MICR Secure EX is the highest-security printer, and it's targeted at financial professionals. It has paper tray locks, special security-enhanced firmware, and a three-position key lock. All of the printers have TROY ExPT (Exact Positioning Technology). The TROY MICR Toner Secure Cartridges meet banking standards.

Go to Page 18

of landline failure for normal calls and 911 calls.

According to Paul Kraska of Multi-Tech, a business could save up to 20% on its telephone bills by using cellular service through a CallFinder instead of PSTN lines.

"How long it would take to pay for the CallFinder will depend on the telecom



#### **SNAPSHOT**

Multi-Tech Systems CallFinder CDMA Cellular Gateway

\$599

Reduces the cost of cell phone-to-office phone calls by routing calls through the PBX phone system to a wireless network instead of expensive phone lines

www.multitech.com

costs to start with," Kraska says. "We are still doing research on how long that will be, but we believe three to six months should be a reasonable ROI."

According to Kraska, very little configuration is required. "There is virtually no configuration required, maybe a few AT-style commands issued through a serial port," Kraska says. "Someone with PBX programming knowledge is recommended to set up the routing tables in the PBX."

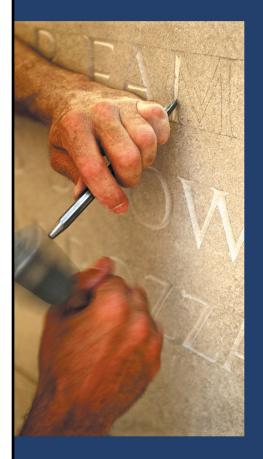
Kraska notes that in many companies the IT department is now in charge of PBX, so those skills are often already present.

Currently the CallFinder CDMA supports Sprint (www.sprint.com) and Alltel (www.alltel.com) wireless networks.

Companies offering competing products to the CallFinder CDMA include Hypermedia Systems and Talking Computers. Hypermedia Systems (www.hyperms.com) offers a CDMA Analog Gateway, providing a cost-effective alternative for fixed lines to mobile telephone calls. It is designed for small and medium-sized enterprises that use analog PBXes. Talking Computers (www.tcl.co.nz) offers the CGW-TS analog cellular gateway as an entry-level solution for telephone cost reduction.

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Continued from Page 17

#### Scanner

■ Xerox announced the DocuMate 752, a new high-speed production scanner rated at 50ppm and 100ipm in portrait mode. Xerox also announced the DocuMate 752 with VRS Professional and DocuMate 632 departmental scanner with VRS Professional. Kofax VRS (Virtual ReScan) technology enables the scanner to capture challenging documents, such as those printed on security paper, recycled paper, wrinkled paper, or thermal paper. The Xerox DocuMate 752 offers an optical resolution of 600dpi, 48-bit internal color, and a USB 2.0 interface. The Xerox DocuMate 752 with VRS Professional has the same hardware and includes the additional features of Kofax VRS 4.1 Professional such as auto-rotation, intelligent blank page detection, background smoothing, and bleed-through detection. These products will be available in Q1.

#### Storage

- ACARD Technology released the AEC-7923, a SATA II converter for devices that have parallel IDE connectors. The converter adopts 48-bit LBA (Logical Block Addressing) and ACARD's ARC772 chip and offers SATA II speeds of 300MBps. It supports IDE hard drives at sizes as large as 750GB or larger. The converter doesn't require drivers and lets the hard drive provide the same functions as other SATA hard drives, such as hot-swap and energysaving modes.
- IBM introduced the System Storage DS3000, which is an entry-level storage system designed for small and mediumsized businesses and distributed local and

remote branch offices. The IBM System Storage DS3200 consists of direct-attached storage that includes clustering capabilities and a 3Gbps SAS connection to the host. Users of the IBM System Storage DS3400 can direct-attach the unit or use it in a SAN configuration. It features a 4Gbps Fibre Channel connector. Both units ship with IBM's Storage Manager software. By the end of this month, the DS3200 will be available starting at \$4,495, and the DS3400 will be available starting at \$6,495.

. . . . . ■ ProStor Systems has added a 160GB cartridge to its RDX removable disk cartridge lineup. The new cartridge has a 33% increase over the company's previous highest capacity. Currently, RDX media is available in native capacities of 40, 80, 120, and 160GB for multiple vendors. The new 160GB cartridge is forward- and backward-compatible with all RDX drives. RDX technology is a removable disk storage media for backup, archive, and portable data apps. ProStor says RDX cartridges and drives are capable of backing up more than 125GB of data an hour. They can also access files instantly and archive data for more than a decade.

■ Seagate has introduced the Savvio 15K hard drive, which the company says is the world's fastest drive (and validated with the latest HP ProLiant family of servers, which are shipping in volume). The drive is part of Seagate's family of 2.5-inch SAS enterprise drives. Seagate says the new drive provides the highest drive performance density and reliability available, while also providing ultra-low power consumption, which reduces thermal loads in data centers. Among this Savvio's features are a 70% smaller size, 30% lower power consumption than any

other 15K drive, a 12% faster seek time than any other drive, and 1.6 million hour MTBF (mean time between failure) rating. The drive is now shipping in 36GB and 73GB sizes.

#### Workstation

■ Fanless, diskless, and reliable from -4 to 149 degrees Fahrenheit. That's the UNO-2171 (\$1,475), a new embedded automation computer that mounts in a DIN rail from Advantech. The Pentium M PC supports Windows XP in its regular or Embedded editions, as well as WinCE. It features two ports each of RS-232, RS-232/422/485 with automatic RS-485 data flow control, 10/100Mbps Ethernet, and USB 2.0.

#### Components

- Acrosser has released the AR-B1892, a single-board computer that's designed for embedded applications that typically require reliable and powerful system performance, superior graphical performance, multiple I/O configurations, and long product life support. The AR-1892 includes an Intel Core 2 Duo, Core Duo, or Celeron M processor; Intel 945GM chipset; up to 4GB of dualchannel 667/533MHz DDR2 memory; VGA, LVDS, S-Video, and DVI video outputs; dual-display support; eight USB 2.0 ports; 10/100Mbps Ethernet; a PCI Express x16 slot; PCI slot; dual SATA II and IDE connections; a bootable CompactFlash Type II Slot; support for Windows XP/XPE/CE and Linux; and more.
- $\blacksquare$  Raritan and TYAN announced the TYANS2912 motherboard and compatible OPMA (Open Platform Management Architecture)based remote management card to deliver advanced built-in remote server management capabilities. The Raritan remote management

. . . . .

card provides KVM-over-IP, remote power control, and supports virtual media. The TYAN S2912 motherboard supports up to two AMD Opteron dual-core 2000 series processors and up to 32GB of DDR RAM. It includes integrated VGA, a SAS controller, a SATA2 controller, dual GbE, and an OPMA slot for extensive high-performance server management.

#### SOFTWARE

#### **Business Productivity**

■ CiRBA has launched CiRBA 4.0 for DCI. The new version features a new interface that simplifies the discovery of items appropriate for consolidation and virtualization. It also provides the necessary tools to create step-by-step action plans and use pre- and post-consolidation metrics. The software can analyze configurations, workload patterns, and business constraints. CiRBA 4.0 also includes color-mapping options, enhanced VM reporting, forward consolidation analysis, and new licensing options.

#### **Network & Systems Management**

■ AVIcode has launched Intercept Studio 4 for .NET application monitoring and troubleshooting. Intercept Studio 4 offers realtime, always-on monitoring as well as diagnostic tools to identify, troubleshoot, and prevent application failures and bottlenecks within the network. Reports are available in both a per-application or per-system view. The software monitors applications for .NET code failures, declines in performance, connection problems, and security failures. Intercept Studio 4 is also compatible with 64-bit .NET 2.0 environments.

> . . . . . Go to Page 19

#### Server

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Continued from Page 18

■ Citrix launched the latest version of its popular GoToMyPC remote access software. GoToMyPC 6.0 now features the Remote Sound capability, which lets users watch videos and listen to music, voicemail, and other audio files that reside on their home or business computers from any other computer connected to the Internet. The software also includes other new features, including Remote Printing, File Sync, and Quick Connect and Reconnect capabilities when using a trusted computer. The software is fully compatible with Windows Vista and Internet Explorer 7.

. . . . .

- Sybase iAnywhere unveiled Remote-Ware 4.3 for retail polling, file transfer, and content distribution. RemoteWare 4.3 includes a Remote Control feature that allows the interactive training of end users on new applications or for troubleshooting specific devices. Users can connect to their devices via TCP/IP or dial networks, and all communications between the administrator console and frontline client machines are secured with AES encryption. RemoteWare 4.3 also includes a Scheduler that maintains active session control data in a SQL database instead of within indexed files.
- uXcomm introduced XManage Server Edition and XManage Information Appliance Edition for its XManage platform to help reduce development cycles and deliver differentiated products. XManage Server Edition integrates systems management functionality within X86 blade and rack dense servers. It provides uXcomm's pre-integrated software services to manage servers from a single Web-based console, and it includes

bundled services for remote discovery, provisioning, and monitoring. XManage Information Appliance Edition embeds network management into a server, storage, network, or software appliance. It provides embedded management capabilities that enable software upgrades to be completed dynamically over the network and other devices.

uXcomm also unveiled SOMA (Service-Oriented Management Architecture) to embed advanced systems management features into any server, network element, appliance, or storage device. SOMA supports any management interface, physical or virtual device, or system. The MSB (Management Services Bus) of SOMA provides a common communication infrastructure in which all applications are converted and deployed as run-time services. SOMA allows developers to construct complete management applications and agents, as well as implement management actions between any two transactions. Based on SOMA, uXcomm's XManage platform connects devices or systems to management applications and unites all data center technologies within one common management infrastructure.

#### Security

■ Blue Ridge Networks has announced that BorderGuard now supports SSO using Microsoft's Active Directory for user authentication through X.509 certificates. BorderGuard includes a Green List for Active Directory remote access into the BorderGuard VPN platform. It also provides a Red List for overriding valid users certificates. BorderGuard provides the tools necessary to authenticate remote users and to use CAC cards.

■ MARX CryptoTech announced the latest addition to its Professional Protection Kit. Document Protection, MARX's content protection software, lets users secure sensitive files, information, and even HTML documents (converted to PDF). In order to view the encrypted documents, the recipient must have a valid CRYPTO-BOX. A document's usability can be set to expire on a given date and the software utilizes IRM (information rights management) to ensure the document's originator has full control over who sees, edits, and prints document contents.

■ Windows Server 2003 now has an improved password and group policy management tool in Specops Password Policy 2.0 from Special Operations **Software**. The application improves on Active Directory's password policies in several ways and prevents people from using various types of obvious passwords. The company says that the software is fully scriptable through .NET or Windows PowerShell.

■ TippingPoint announced that Lancope, Mazu Networks, and PatchLink now work directly with TippingPoint's IPS (Intrusion Prevention System) and SMS (Security Management System) to provide IPS-based quarantine capability for active security policy enforcement. Tipping-Point's quarantine capability monitors network infrastructure to isolate and resolve internal sources of malicious activity, and now it's interoperable with third-party patch and vulnerability management applications for automated remediation. The quarantine features include a remediation Web page and the ability to block a port or redirect the infected endpoint to a secure VLAN.

■ SpectraLink has introduced its NetLink Softphone application, which extends the company's Wi-Fi telephony abilities with third-party mobile devices. The thin-client application enables voice-enabled mobile devices to operate as full-business phones integrated with enterprise telephone systems while offering performance over wireless LANs and handhelds. NetLink runs on Windows Mobile 5.0 and PocketPC OSes and works with SpectraLink's Telephony Gateway using SRP (SpectraLink Radio Protocol), which was developed to provide voice quality over converged wireless networks. Additionally, the softphone supports text messaging via the company's OAI (Open Application Interface). SpectraLink is targeting the application first at retail enterprises that support Symbol Technologies' MC50 and MC70 devices. Pricing will be based on enterprise-wide licensing.

#### **SERVICES**

#### **Network & Systems Management**

■ Sun Microsystems announced Solaris 10 Support Subscriptions to provide support plans, remote systems management capabilities, migration assistance, training, and professional services for the Solaris 10 OS. Solaris 10 Support Subscriptions include indemnification, binary, and source code compatibility, as well as access to free upgrades to the Solaris technologies. The service ranges from developer-focused \$49 perincident support to the customized site-wide Solaris Everywhere Plan. Solaris Support Subscriptions are integrated across Sun and non-Sun x86, x64, and SPARC platforms.

#### **Storage**

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# Monitoring Servers More Efficiently

#### **Altiris Server Management Suite Helps Administrators Maintain Servers**

by Tony Bradley

IF YOU ONLY HAD ONE or two servers, it wouldn't be that difficult to just sit down in front of them and check them every once in a while to make sure everything is working. But when you have to monitor many servers, sometimes hundreds or even thousands of servers, that task becomes significantly more daunting. Often, the first notification that you get to let you know a server is down is when the phone starts ringing with complaints because users or customers can't get to it.

Making sure they are up and running is only a small part of the task. You also need to have a method for asset inventory, patch management and deployment, backup and recovery, and more. It is a lot for a systems administrator to maintain and be aware of for one server, never mind hundreds.

Altiris, a Utah-based company founded in 1998, has a product that can help to maintain virtually all aspects of server management from one location. Rich Lacey, Altiris product line manager, says, "More and more critical business operations are run through server-based applications. A company loses money if these servers and their applications are unavailable. IT operations and security management solutions are required to keep servers optimized and available. Altiris Server Management Suite is a bundle of integrated

solutions that help automate operations, improve system availability, and reduce overall infrastructure costs."

While there are other products available, such as GFI Network's Server Monitor (www.gfi.com) and Applications Manager from ManageEngine (manageengine.com), that will monitor servers and ensure that services and processes are running properly, the Altiris Server Management Suite packages other tools and utilities not included by

#### **SNAPSHOT**

**Altiris Server Management Suite** 

Starting at \$253 per node

Helps to ensure servers are online, functioning properly, and performing optimally

www.Processor.com/Altiris7

competing products, such as vulnerability scanning and patch management.

Altiris' Lacey says, "Altiris Server Management Suite provides IT administrators with a complete product for managing business-critical operations and the servers that support them. Designed to simplify management of the entire server life cycle, Server Management Suite provides initial deployment and ongoing management like [asset] inventory, patch [management], software delivery, and monitoring functions from a centralized, integrated console."

The Altiris Server Management Suite starts out at \$253, and Altiris offers volume licensing discounts. The all-in-one approach to server monitoring, software deployment, patch management, and other tasks may not work well for a large corporation, but small and medium-sized enterprises may find the combination to be valuable.

# Computer Consulting Services Get A Facelift

#### **Symantec Adds More Services To The Pack**

by Julie Sartain

COMPUTER CONSULTING SERVICES have been around since computers were born, and every decade or so these services get a facelift. Symantec has extended its consulting services (from its current Antivirus Residency Services) to include two additional plans: Data Protection Operational Services and Data Protection Residency Services. The operational services are conducted under contracts called service-level agreements, and the residency services are fee-based.

Symantec's Data Protection Operational Services allow its customers to outsource key IT functions to professional Symantec personnel, notes Ted Donat, group product manager at Symantec. Services are provided onsite at the customer's location, online remotely, or a combination of both. Having access to a trained, experienced Symantec consultant provides a company's staff with their own personal assistant, who

is intimately familiar with the enterprise's system, setup, and unique problems.

These services reduce costs, increase efficiency, help companies manage their security risks, and liberate IT personnel for other tasks. "By leveraging deep expertise with both Symantec and third-party data protection technologies, Symantec consultants can help enterprises reduce the complexity and costs associated with managing heterogeneous data

then becomes a member of the company's IT staff. This service involves hiring the consultants on a fee basis, which means they work for Symantec but report to the company's IT director. Symantec consultants can manage all backup and recovery processes, provide 24/7 remote monitoring and alerting services, and manage end-to-end protection or recovery of mission critical data for enterprise customers, says Donat.

The target market for these services includes enterprises that recognize the savings that come from offloading management of day-to-day data protection and disaster recovery operations to a trusted IT consulting partner.

protection environments, improve performance, and significantly reduce associated IT risks," says Donat.

The Residency Services entail installing a Symantec consultant onsite, and that person

And, according to Donat, the target market for these services includes enterprises that recognize the money and time savings that come from offloading management of day-to-day data protection and disaster recovery operations to a trusted IT consulting partner with extensive expertise in these areas. This not only drives down the cost of data protection but also enables organizations to focus on their core business areas. All vertical markets can benefit from these services.

Competition includes all the usual suspects, including Cisco (www.cisco.com), IBM (www.ibm.com), Microsoft (www.microsoft.com), and most of the other security application companies. "But, unlike these competitors," says Donat, "Symantec has leadership positions across many technology areas, including data protection, security management, storage management, high availability, disaster recovery, and application performance management. Symantec also maintains a truly heterogeneous approach that supports all major operating environments, storage hardware, and applications."

In addition, notes Donat, Symantec is the only vendor that can provide ongoing manageability across enterprise security and availability environments and address all areas of IT risk, such as security, availability, performance, and compliance.

#### SNAPSHOT

Symantec Operational Services & Symantec Residency Services

Enterprises can outsource key IT functions, with Symantec professionals either onsite or online remotely

www. Processor. com/Symantec Consulting

# Small Footprint, Zero Delay

# **Net Optics 10/100BaseT Slim Tap Access Point Monitors Network Traffic With Ease**

by Robyn Weisman

GIVEN THE AMOUNT OF TRAFFIC that passes over links within a network, IT administrators, data center managers, and others overseeing company networks need to be proactive in ensuring that data packets are neither carrying malware nor overtaxing network bandwidth.

Net Optics has recently released its latest iteration of its series of 10/100 TapPs (Test Access Ports) to help with these duties. Called the 10/100BaseT Slim Tap, this

passive access point allows intrusion detection systems, protocol analyzers, and other monitoring devices to access network traffic without introducing yet another point of failure. In addition, the Slim Tap provides users with an LCD snapshot of the percentage of bandwidth being used in a given link.

"The snapshot shows us whether we are taxing a particular link. The alternative to this is a big, expensive analyzer," says Dan McCarthy, business development manager at Net Optics. "And a laptop using a CLI

(command-line interface) can check the bandwidth and issue percentages of total utilization in both directions."

The Slim Tap lives up to its name. You can fit six of these appliances in a single 1U rackmount frame. (Net Optics sells a six-slot version specifically for the Slim



#### **SNAPSHOT**

#### Net Optics 10/100BaseT Slim Tap

\$395; Net Optics also sells an optional six-slot rackmount frame (RK-6V2) for \$100

Provides users with an inexpensive, easy-to-use way to monitor network traffic that also has a small footprint, redundant power supply, and Zero Delay capabilities

www.Processor.com/NetOptics2

Tap.) Net Optics' previous generation 10/100BaseT Tap is double the size, three per rack, at the same price point, notes McCarthy.

Of course, the Slim Tap's 10/100 technology in itself is not exactly cutting-edge, given that it has been around for more than a decade. McCarthy himself says that it is the slowest speed out there. Nevertheless, it is still a commonly used interconnect.

The Slim Tap's most notable feature is its use of Net Optics' trademark Zero Delay technology, which prevents a given link from losing power or packet delay.

"Anybody monitoring a tap doesn't want links to go down. If power gets lost, the Slim Tap offers two redundant power supplies, and if you unplug both power supplies, Zero Delay comes into effect, [so that] you see no loss in traffic between the two switches," McCarthy says.

10/100BaseT Slim Tap competes with other network access point products, including Network Critical's 10/100 Base-T Passive TAPs (www.criticaltap.com) and Datacom System's selection of 10/100 Network Taps (www.datacomsystems.com). 
□

**COMPONENTS** 

# **DECEMBER 8, 2006**

# **Improved Connectivity** For Servers & Storage

#### **Mellanox Introduces 4th-Generation** InfiniBand Architecture

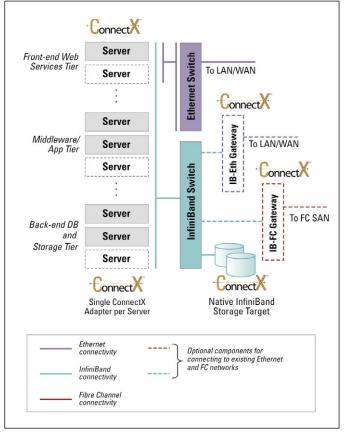
THE GROWING DEMAND for better application performance is driving the increased

adoption of clustered servers and server virtualization on top of multicore processors. But connecting these servers in a way that maximizes their performance poses I/O connectivity challenges. Many current solutions are inadequate for the demands of tomorrow's server and storage networks.

Mellanox, which is known for its advances in InfiniBand technology, has created the new ConnectX architecture to address the data center need for cost-effective bandwidth, improved quality of service, and protection of an enterprise's infrastructure investment. With ConnectX-based solutions, vou're ensured of incremental and demand-based I/O growth and scaling well into the future.

The ConnectX architecture enables integration of extraordinary levels of functionality into a single adapter chip. It supports eight lane PCI Express v1.1 and v2.0 interfaces as the host interface. For network and storage connectivity, it supports two network ports, and each port can be flexibly

configured as either a 4X InfiniBand port or a 10 Gigabit Ethernet XAUI/CX4 or



A typical deployment scenario, with ConnectX-based server blade mezzanine cards in server blades with one InfiniBand port and one 10Gb Ethernet port.

XFI port. The InfiniBand port supports single, double, and quad data rates (SDR, DDR, and QDR) delivering 10, 20, and, eventually, 40Gbps full duplex bandwidth.



The network ports support either Infini-Band physical layer semantics or XAUI semantics.

With ConnectX, enterprises using Fast

or Gigabit Ethernet for connectivity and Fibre Channel-based SANs can avoid forklift upgrades as they move to higher performance and unified connectivity options. And, compared to other options, ConnectX excels in its ability to provide stringent levels of services to applications and virtual machines in virtual server environments.

The ConnectX architecture offers the necessary building blocks for designing leading price/performance server and storage connectivity solutions. Service-oriented I/O ensures scalable and granular quality of service for a converged set of data center applications, in both native operating system and virtualized server environments. Multiple network and storage connectivity options on a single ConnectX adapter enhance the server OEM's target markets and time to market. And end users can depend on ConnectX solutions for incremental and demand-based I/O growth and scaling.

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**STORAGE DECEMBER 8. 2006** 

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- RAID 6 can tolerate multiple drive failures without downtime or data loss, which helps to provide the highest level of data protection
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**NETWORK & SYSTEMS MANAGEMENT** 

**DECEMBER 22, 2006** 

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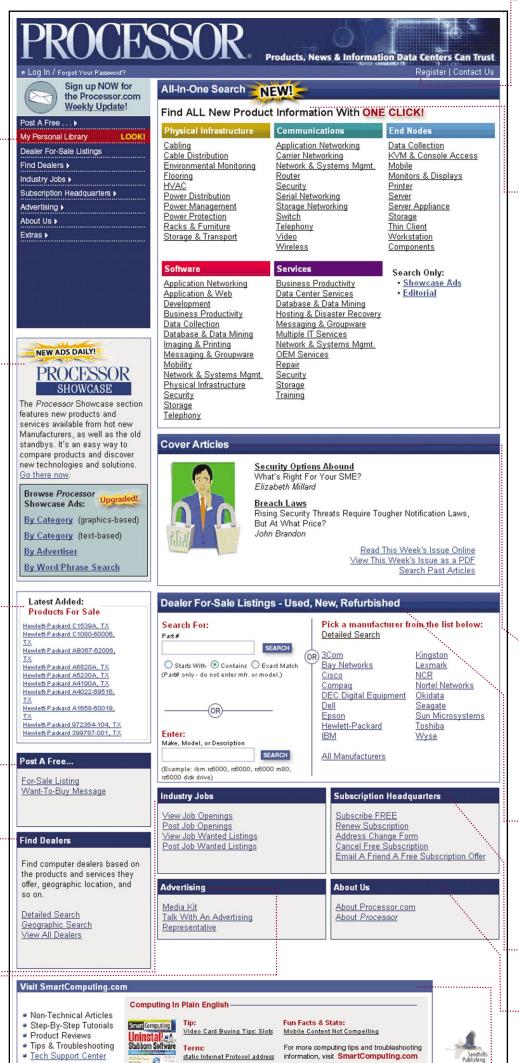
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#### **OPINIONS**

# **Anti-piracy Efforts Bring New Licensing Woes**

Software licensing used to be fairly straightforward. Companies bought software, installed it, paid for the license, and forgot about it. Today's vendors are adopting more complex license enforcement models aimed at curbing software piracy. "Install and forget" is not a valid enterprise strategy.

#### Microsoft Leads The Charge

Leading the charge in anti-piracy innovations is one vendor that has had more than its fair share of software pirated in the past: Microsoft.

Microsoft (www.microsoft.com) is serious about curbing piracy and willing to do whatever is needed to protect its revenue stream. New programs aimed at mitigating piracy could also cause headaches for enterprises. Has the vendor gone too far?

Consider the much talked-about "Vista kill switch." With the enterprise release of Windows Vista, Microsoft also launched new software activation and license enforcement products: Volume Activation 2.0 and the SPP (Software Protection Platform). These are anti-piracy tools with teeth.

Users that fail to activate Vista properly will be denied key features, including antispyware functionality, which certainly raises concerns about leaving PCs open to security threats. Seemingly innocuous hardware changes can also trigger validation software.

If failure to activate or restore hardware configurations persists or if the anti-piracy tool detects code tampering, users are cast into the next level of purgatory: RFM (Reduced Functionality Mode). In RFM, there is no Start menu and no icons; the only functionality available is limited Web browsing. After that, the only option is to purchase a new product key or contact Microsoft for support. Never mind that the PC and associated assets are owned by the enterprise—a

completely automated, vendorcontrolled enforcement tool has compromised the system.

Volume Activation 2.0 has its own set of obstacles, the big one being nonperpetual activation. For enterprises using Microsoft Volume Licensing for Vista, PCs must periodically connect to the network or Internet for activation servers and maintain good standing with Microsoft. Failure to do so can result in RFM.

#### An Industry On The Move

While the vast majority of piracy occurs in the consumer market, the leading cause of piracy is misappropriated volume license keys. As such, vendors are increasingly targeting porous enterprise licensing schemes.

Currently, Microsoft anti-piracy tools only affect Vista; however, expect this to be a feature used in all Microsoft enterprise software in the future. Now that Microsoft has developed the tools, it is not unreasonable to expect other vendors to adopt the technology.

- NO EXCUSE · NO COMPROMISE

Industry studies reveal that interest is growing among vendors for anti-piracy tools built into software. According to a recent report by SIIA (Software & Information Industry Association) and Macrovision (www .macrovision.com), electronic/digital enforcement will overtake legal contracts as the No. 1 method of product licensing by 2008.

#### **Pirates Beware, Enterprises Be Wary**

While the new Microsoft systems are sure to be a bane for software pirates, the real issue is false positives: that is, legitimate users who are unwittingly caught in

NAUMAN HAQUE

Nauman Haque is a research analyst at

making and technology management issues,

including total cost of ownership and return on

investment analysis for technology investments.

Haque holds an MBA from the University of

Info-Tech Research Group. He has conducted

extensive research on strategic IT decision-

the crossfire. Software pirates will work diligently to circumvent anti-piracy controls. Vendors will retaliate, and enterprises will be saddled with more restrictive activation requirements and validation procedures.

#### Complacency Is No Longer An Option

Few enterprises engage in comprehensive SAM (software asset management). In fact SIIA's numbers show that 48% of enterprises rely on manual methods to track license compliance, while 8% do not track compliance at all. Given new licensing and enforcement models, this is no longer acceptable. Even

enterprises with existing SAM tools have to update license management systems to ensure they are current with the latest activation requirements.

Consider non-SAM management best practices. For example, application development that affects system configurations or poorly managed hardware changes could trigger validation software. Without proper validation test procedures, development teams and admin-

istrators could easily trigger an alarm.

Disaster recovery planning is another aspect of IT management not typically associated with licensing. However, poor activation due diligence could delay recovery times or result in RFM-related downtime. Disaster recovery plans should include scripts that help IT support staff manage activation and RFM-related issues, including contacting the vendor to ensure activation compliance.

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the enforcement web due to poor asset management or ill-planned system changes.

Western Ontario.

Enterprises should be concerned: Vendors are building anti-piracy tools into software that track and monitor enterprise systems; compliance monitoring is completely automated and at the discretion of the vendor; noncompliance, even incorrect perception of noncompliance, can result in compromised systems; and the enterprise has no legal recourse if false positives impact business.

As the war rages on between software pirates and vendors, enterprises get caught in

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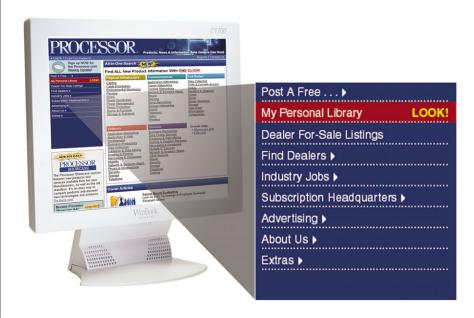


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# Mainframe Tuning

# **Get Optimal Performance With The Right Tools**

by John Brandon

THE MAINFRAME IS DEAD; long live the mainframe. Or is it really dead at all? While some smaller companies have moved to a server rack or other methods of running IT in a small or midsized business, the mainframe is still just as prevalent as ever.

Part of the issue is that, even though IBM (www.ibm.com) has seen double-digit growth in its mainframe line over the past year—according to analyst Richard Ptak of Ptak, Noel & Associates (www.ptaknoel associates.com)—a mainframe is often viewed as technologically staid and cumbersome to maintain. In some cases, older mainframes have become woefully misaligned with the rest of the business. As a result, CPU cycles are running at much less than optimal timings, and newer tech-

nologies—such as blade servers, SAN storage, and VoIP—get all the attention. While IBM introduced four new mainframe models in the last year, you might be hard-pressed to find extensive coverage of these new products.

It's interesting to note that while a mainframe can be more efficient than other solutions, with lower power and cooling requirements and even with a smaller footprint than ever before, the main problem is "Obviously, all of the ad hoc methods to solving CPU inefficiencies have the problem of requiring significant investment [in new architecture] and bring change to the operating environment, which is usually disruptive," says Ptak.

#### **Mainframe Tuning**

A better solution is mainframe tuning. Companies such as IBM, AQM Solutions (www.aqm-solutions.com), and Compuware (www.compuware.com) have products that can fine-tune a mainframe for performance. The products generally examine performance problems at the CPU level and

# "For many small and midsized companies, applications on the mainframe remain the lifeblood that flows through the company."

-AQM Solutions' Osman Aykut

### Mainframe Tuning Benefits

- Increased application performance
- Not necessary to upgrade components
  as often.
- Lower maintenance requirements
- · Performance analysis
- Less downtime for applications
- Support for legacy mainframes

that mainframes are running at less-thanoptimal levels. Admins sometimes throw
more hardware at the problem. This can
include more CPUs to make applications
run faster, more memory to deal with bus
throughput latency, and more network
bandwidth to get the data off the mainframe
faster—even if it is stuck in slow CPU
cycles. Also, they try new applications or
technologies to speed up the mainframe
and new software upgrades for the client to
deal with inefficiencies. Each new investment adds more maintenance and actually
cripples the CPU cycles more, causing a
snowball effect.

fine-tune the mainframe for a given set of applications. Over a set period, a product such as AQM Solutions' TriTune might track application performance across an entire enterprise and monitor performance and then make fine adjustments to increase efficiency from 50% usage to as high as 90% usage. The result is a much lower investment in new hardware, especially additional CPUs; lower maintenance costs, due to the fact that mainframe tuning weeds out performance problems; and lower admin costs monitoring mainframes.

"For many small and midsized companies, applications on the mainframe remain the

## Mainframe Tuning Options

#### AQM Solutions TriTune

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#### Compuware ApplicationVantage

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- Troubleshoots application performance problems
- Predictive analysis features let you test fine-tune methods
- Certifies performance for application requirements

#### IBM

www.ibm.com

- Consulting and analysis services for mainframes
- Bundled tools analyze application performance
- Online Redbook guides walk admins through tuning

lifeblood that flows through the company," says Osman Aykut, chief technology officer at AQM Solutions. "By improving efficiency and performance of mainframe applications, companies can dramatically improve their end-user experience and overall productivity and postpone their investment in more CPU and software license costs."

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# Network Headaches You Can Avoid

#### A Little Proactivity & Knowledge Can Cure Many Network Headaches

by Will Kelly

CORPORATE NETWORKS can be a headache for users and data center staff alike, especially for SMEs with a lean IT staff. With a proactive approach and automation, your SME can help remedy some of your end users' network headaches and some of your own network-related IT headaches.

#### **Network Headaches Afflicting The SME**

Network headaches can afflict the SME from the data center to the end users and even the business itself. However, if you stay proactive, you can remedy common network headaches before they get out of control and make the phone ring or deposit another trouble ticket into your inbox. This article offers a few remedies to some common network headaches offered up to keep you and your network healthy.

Baseline performance. Charles Thompson, manager of sales engineering for Network Instruments (www.networkinstruments.com), sees failing to baseline application and network performance as a major network headache for SMEs. Too often, users blame the network when operations

are running slowly on their computers, and you need to be able to pinpoint network problems quickly. It's critical to analyze and isolate problems pertaining to both the network and application performance. This mistake catches SMEs in the trap of constantly adding bandwidth. Thompson prescribes real-time monitoring tools and historical trending as a remedy for this headache because it can help you distinguish between network and application performance.

Take advantage of information. Another headache Network Instruments often encounters is data center staff not taking advantage of all the information available to them. "Know your equipment's capabilities and leverage it to your advantage," Thompson says. He mentions configuring SNMP (simple network management protocol), sFlow, and NetFlow in edge routers to provide administrators visibility from the core to the edge of the network. A remedy for this headache is for you and your team to educate yourselves on the monitoring features of your network infrastructure. Maximizing existing monitoring tools can help save on later costs when you consider full-dress network monitoring tools.

Understand traffic patterns. Not fully understanding network traffic patterns is another headache, according to Thompson. In order to break out of the reactive cycle (and accompanying headache) too many SME data centers often find themselves in, he advises leveraging analyzers and sFlow devices to set up network baselines and get information about network traffic issues before you get the first help desk ticket regarding network issues.

Create self-help services. Philip Kwan, director of product management for A10 Networks (www.a10networks.com), sees network identity management and establishing user self-help services as a regular problem. According to Kwan, "Another popular problem we have been helping small to large customers solve is user selfhelp services. These services allow end users to perform the following IT actions without getting anyone from IT involved, including resetting their password; recovering from a lost or forgotten password; changing information in the user's profile, such as cell phone number, home phone number, and so forth; setting up their security questions for password resets."

"This may sound like a trivial task to many IT people, but in reality, many of our customers have told us that their help desk records show password- and account-related issues to be the No. 1 problem in their company. Having the ability to allow end users to quickly access a Web-based kiosk to perform these tasks has saved our customers many hours per week and helped their end users regain productivity," Kwan says.

Make it easy to track users. Another headache, according to Kwan, is tracking down users across a network when they are part of an alarm or alert. He recommends curing this headache by using IP-to-ID, so you can instantly resolve any MAC or IP address back to the user and/or device that was using that host address during the time of the security or network alert.

"Every IT manager knows that there are unused and unnecessary access policies that are making his network insecure," says Chris Hopen, CTO and co-founder of Aventail (www.aventail.com). "Throughout the year, various requests have come from the business units to provide access to a particular application or add in a contractor or permit a particular route . . . and by now the access policies for the firewall, personal

firewall, remote access devices, VPNs, etc. include a number of access policies that are no longer relevant. And these unpruned access policies are decidedly a dangerous risk, keeping network managers awake at night. Avoid this headache by creating policies and procedures to 'prune' them at regular intervals and having the right tools to make the job efficient."

Use network monitoring with VoIP. The convergence of networks and telephony with the introduction of VoIP on your corporate network can spur a network headache, according to Thompson. "VoIP is another application in the network environment, and a side-by-side comparison is integral to network monitoring." Thus, network monitoring is a potential cure to the headaches that can often erupt as VoIP calls tax your corporate network bandwidth.

Implement security policies. Failing to implement security policies within your IT department is another headache. While your IT department focuses on user security, you are asking for headaches if you don't implement department policies such as role-based security and restricting consultant/partner access to sensitive systems.

## Curing The Network Headaches That Ail You

A proactive approach, network monitoring, and leveraging the network infrastructure you already have in place are integral to curing your user's network headaches and your department's resultant headaches.

# **Easiest Headache To Avoid**

Believing that a new application or system will work right out of the box is perhaps the easiest headache to avoid. The surest remedy for this headache is to develop a strong testing and deployment strategy prior to a new application going live in your production environment.

# Other Lingering Network Headaches

#### Headache

Trusting equipment vendors to conform to industry standards

Do your due diligence on the vendor's equipment and implement the necessary tests to validate the vendor's conforming to standards.

Leaving your Wi-Fi hotspots open

Implement a Wi-Fi security policy along with your standard network security policies.

Trusting users to secure their systems and applications

Implement appropriate security that can lock down your users' desktops, so only administrators can install software on the desktop.

Trying to troubleshoot sporadic network issues without the right equipment

Home office/mobile workers are on the increase in your SME

Implement network analysis equipment to gain a coherent picture of your network.

Implement a mobile computing/home office security policy, specifying an antivirus package, software firewall, and other appropriate security measures and policies.

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# Early Warning Signs Of IT Project Failure

#### **Good Fundamental Project Management** Can Make A Difference

by Paul Ferrill

IT PROJECTS HAVE gotten a bad rap when it comes to success vs. failure. It's not uncommon to read about the high-profile government software project that didn't deliver on time and was way over budget. What you don't read about are the specific causes for the failure or the multitude of other project successes.

Learning from the mistakes made on any project should help the aspiring manager avoid them in the future. Identifying those mistakes is a different story altogether. Causes range from poor planning to bad execution. The hardest issues to quantify lie within the people who make up the team their personalities and their ability to adapt to difficult work situations. Managing expectations from both sides of the table can be a full-time job.

#### Read The Signs

Some signs of a troubled project are easier to spot than others. The key is in knowing where to look. Every project of any size has some type of plan with milestones and associated dates. One of the biggest and easiest-to-spot signs of trouble is a project that consistently misses dates. Understanding why the dates haven't been met takes a little more sleuthing.

If you were to ask any manager of a failed project to identify the biggest reason his IT project failed, you'd probably hear something about changing requirements. The fact mate is dynamic and demands that projects be able to adapt to new business conditions. The key to monitoring this warning sign is to look at how the team is dealing with new or changed requirements, including how it adjusts its baselines accordingly.

is that things change. Today's business cli-

## One of the biggest and easiest-to-spot signs of trouble is a project that consistently misses dates.

According to Alex Cullen, a research director for IT leadership at Forrester Research, "Good project management is very dependent on a good project manager and an environment that supports good project management. By that I mean a company that supports managers with clearly defined processes, tools, and training."

#### **Identify Troubled Projects**

Because knowing what to look for to detect a struggling project is important, Cullen has identified these five signs that a project is headed for trouble.

No clearly defined project methodology with phases and checkpoints. You can't measure something if you don't have a gauge to measure by. A good project plan with defined phases and dates provides clear evidence of progress. If the project doesn't have these, you need to find out why.

A clear history of checkpoints being missed. If you have a good plan with dates, and the project is consistently missing those dates, then something is wrong. Either the dates weren't realistic, or there is some other deeper problem.

Little to no involvement from the business sponsor. It's hard to build a good product of any kind in a vacuum. If the sponsor of the project doesn't have the time to provide feedback, they may not like the end result.

Vague or constantly changing requirements. Clearly defined requirements are essential to any project. Design decisions based on a specific set of requirements may not work if those requirements change sig-

nificantly. Unclear or nonspecific requirements indicate the customer might not be sure of what they want.

Out-of-date project plans and estimates. Change is inevitable. Updating project plans to reflect reality will help keep everyone on the same page and avoid a mad scramble when deadlines approach. Project managers should periodically review critical project documentation to make sure it's up-to-date.

#### Plan For Success

The best way to keep a project from failing is to set it up to succeed. Many IT software development teams have adopted the agile methodology that seeks to break down any large project into smaller, more manageable chunks. Agile methods lend themselves better to highly dynamic environments where new business needs drive the requirements as opposed to the older, more rigid methodologies.

Keeping tabs on multiple projects going on within a company is no easy task. Knowing what to look for comes mostly from either experiencing it firsthand or observing it from the outside looking in. Knowing what to do when the red flags go up will make the difference in success or failure.

The smart IT managers will use all the tools at their disposal to help make their projects a success. Understanding what a project needs, whether it is resources or an advocate with their customers, could turn a loser into a winner.

#### Project Management Basics

Good project management skills can be learned. The PMBOK (Project Management Body of Knowledge) is an internationally recognized set of principles and processes to put in place good project management discipline. The "PMBOK Guide" from the Project Management Institute (www.pmi.org) offers a good overview

Understanding what success really means will help any manager do the job better. In the

report "What Successful Organizations Know About Project Management," Forrester identifies three different types of organizations with different success criteria. Each organization places these three areas in their order of priority: expectations, schedule, and budget.

While one group is totally schedule-driven, another is budget-constrained. The third sees meeting customer expectations as more important than either budget or schedule.

# **Mainframe Tuning**

Continued from Page 24

"To put this into practical terms, let's assume your company has a transaction running on the mainframe with an average CPU usage of only 0.05 seconds," notes Aykut. "This single transaction may not register as a so-called problem; therefore, it does not appear on your performance radar. However, if this transaction is called 150,000 times per day, 50% of that during the peak time, the result is over 125 minutes of CPU time daily, or more than 31,250 minutes per year. At a rate of \$12 per CPU minute, the annualized accounting cost can be in the neighborhood of \$375,000."

#### **Solutions Available**

AQM Solutions' TriTune works in complex mainframe and parallel sysplex environments. It analyzes the functions in CICS, IMS, DB2, and many other programming languages. The analysis results report both time and related resources consumption. Compuware's Vantage suite includes modules such as ApplicationVantage and VantageView for troubleshooting and tuning application performance on a main-

frame. Meanwhile, IBM offers application performance tuning tools with RS/6000 mainframes and other solutions and provides extensive guidance in the form of Redbook document guides, many of them available online at www.redbooks.ibm.com and with the product itself.

"Virtually any industry can benefit from mainframe tuning," says Ptak. "There are some generic characteristics for most applications, such as transaction-heavy processing, and those installations that are dependent on significant user input or massive data applications—especially if they require correlations across multiple data tables-and older applications that need to be optimized for current loads and operating environments. I can't think of any specific industry that couldn't benefit."

The result of mainframe tuning is usually a lessened need to perform costly upgrades or purchase new systems, where each CPU can run more efficiently. There's an added benefit from the lower power and cooling requirements from tuning instead of adding new components, as well.

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## WHAT'S HAPPENING

# What's Happening In Security Acceleration

#### **Sensory Networks Speeds It Up**

by Chris A. MacKinnon

No IT MANAGER WANTS Swiss cheese security surrounding his network. At the same time, no one wants his security solutions to drag the network down. Yet, these issues continue to hinder enterprises on a global basis. But the security acceleration industry is addressing these issues, even though it is at a young age and still maturing. Michael Johnson, spokesperson for Sensory Networks (www.sensorynet works.com), says the security acceleration industry is still a very open market, but big changes are on the horizon. He says the industry is currently split between companies using internal products and companies with their own custom hardware.

#### **Current Challenges**

According to Johnson, the image that most people have when it comes to security acceleration is limited to encryption functions (for example, SSL [Secure Sockets Layer] and IPSec [Internet Protocol Security]). However, the majority of security devices getting sold out there now, he says, focus almost completely on content security; in other words, the email, Web, and VoIP traffic coming in and out of networks.

"Vendors are cramming more and more functions into their products," Johnson says, "of which the drive towards UTM [unified threat management] is symptomatic. This means network security acceleration has to work in systems with higher performance requirements and support more applications every year. There are three or four companies out there with their own PCI boards and a couple who have a software-only solution."

Johnson says problems still exist in the industry, but he says Sensory Networks is working to solve them. He notes, "As yet, there is still a gap between security technology and security acceleration technology, both in technical terms and with alliances between companies. A system administrator just wants the best security software out there to run on the best acceleration technology, but there are quite a few tangles to unsnarl first."

Johnson notes that Sensory is contributing many things toward this unsnarling. He says, "Firstly, we built our SAA [Security Application Architecture] framework to run any application on any platform and combine them intelligently. We have brought together leading partners from many fields to create our Application Ecosystem for appliance vendors to pick and choose from. And we are constantly working on expanding both sides of the equation, bringing in new partners and providing support for new platforms."

#### Sensory's Approach

The technology behind Sensory's security acceleration solutions works to offload a common problem to a separate card. "Simply put," Johnson says, "searching for malware in a traffic stream is now a memory issue, not a CPU issue. Virtually all security applications out there have a database of some kind they have to check the traffic against. No effective database will fit into L1 or L2 cache, so cache misses lead to increased latency, which leads to slowing down traffic, which ultimately leads to clogged systems."

Johnson says no IT manager wants her security needs to bring the network to a halt.

Sensory Networks has developed a patented approach to send the problem elsewhere. Johnson says, "What our patented NodalCore technology does is to take this whole problem and offload to a card with bounded latency and multigigabit throughput. This frees up the security gateway to do



all the other tasks it has to and only requires processing if an actual attack is detected."

Johnson says one of the best things about Sensory's solution that gives it industry appeal is its uniqueness. He notes, "Our solution is unique in several ways. Firstly, we use FPGAs [field-programmable gate arrays] instead of ASICs [application-specific integrated circuits] to ensure we can update not only the software but also the hardware over the Internet to keep NodalCore-accelerated devices absolutely up-to-date. Our Core-PAKT compression lets us fit up to 10 million signatures on a single card—none of our competitors come anywhere near that."

Johnson adds that Sensory's SAA framework (free with any application) enables IT and data center managers to instantly download, install, and run new applications as soon as they become available on Sensory's Application Ecosystem network.

#### Staying Tuned

A separate aspect that makes Sensory Networks unique, in Johnson's opinion, is the company's online store. Johnson says,

"We're the only network security acceleration vendor offering our products to end users through our online store [store.sensory networks.com]. We've been getting a barrage of requests from system administrators and Internet service providers wanting to speed up their antivirus, antispam, and IPS [intrusion prevention system] filtering, and we have decided that we will open up this as a channel. We actually run all our own products on our own network—eating our own dog food, as it were, so we know exactly what enterprises are looking for."

Johnson says Sensory Networks can solve an enterprise's performance issues for a massive set of security concerns at a competitive range of price points. He says Sensory Networks is constantly innovating and is focused on making the enterprise an end user-friendly environment.

Outside of Sensory's walls, Johnson says much of what the company's closest competitors are working on includes softwarebased solutions or lower-end solutions. He says, "We've seen a few software-only acceleration libraries out there recently. We also provide this as an entry-level solution, and it works quite well for low-end appliances, but without any off-loading, the system really suffers under heavy traffic. We've also seen companies attempting to bring an ASIC card to market, to take advantage of the lower cost ratios. However, as we've seen again and again, the security industry is a constantly changing beast, and to re-spin costs you a lot of time and money."

Johnson says there is a lot of excitement at Sensory right now, with several new products coming out at RSA Conference 2007 (www.rsaconference.com/2007/US), which will be held Feb. 5 through 9 in San Francisco. He notes, "It is all under embargo until then, but let's just say we will be unveiling a few new platforms, in partnership with some household names, that will completely change the face of the security acceleration industry." Johnson says Processor readers should stay tuned to Sensory Network's announcements at RSA 2007 to see what the company has on its immediate horizons.

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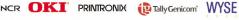
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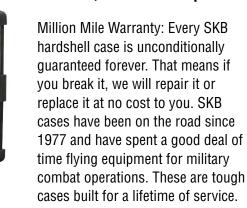
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